CONDITION OF EDUCATION

The Massachusetts Department of Education
1985

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Preface

This report examines the Condition of Public Elementary and Secondary Education in Massachusetts and identifies current trends.

The statistics and other information contained in the report were compiled from a variety of existing state and federal data bases; periodicals and books; reports from research organizations and experts. The report relies heavily, however, on data collected from local school districts by the Bureau of Data Collection and Data Processing in the Department of Education.

It should be noted that educational data collection is under review nationwide. For this reason some desirable data were not available for this year's publication.

The purpose of this report is to provide educational decision makers and the public a composite of the progress, strengths and needs of public elementary and secondary education.

CONTEXT OF EDUCATION

Public education remains the one institution, through which most people pass for some period in their lives. It has suffered from ad hoc purposes and escalating responsibilities, from frequent blame and rare praise. "Education is always more essential in our arguments than in our appropriations." (David Cohen, Harvard Educational Review, February 1984.) More than any other institution education must reflect and bear the brunt of changes in the larger society. For that reason we begin the Condition of Education Report with a brief report on the condition of the nation.

In a mere two decades we have been transformed from an industrial to an information society. The industrial society, a century in the making, allowed for a relatively leisurely shift. This nearly unheralded change, however, has occurred virtually overnight accompanied by unsynchronized transitions in the world economy. Several trends illustrate what is occurring:

- More than 60% of all employed persons work in information jobs, a 253% increase since 1950.
- The change in the nature of the economy is creating approximately 600,000 new companies per year, a startling 545% increase since 1950.
- Of the 19 million new jobs created during the 1970s, 90% were in the non goods-producing sector.
- Labor productivity growth began a steady descent in 1965 to -2.2% per year in 1979. In 1980 the Council of Economic Advisors could find no single cause for the slowdown.
- Since 1979 labor productivity growth has increased to 1.7% per year in 1984. It showed its greatest gains between 1983 and 1984 since the 1950s. The gain is partly attributable to increased investment in research and development.
- Japan has become a world leader in manufacturing.
- The United States slipped from having 25% of worldwide manufacturing in 1960 to 17% in 1979.
- Increasing labor costs and low productivity prompted U.S. producers to establish manufacturing sites in foreign countries. This new strategy reduced costs but also job opportunities for Americans.
- Estimated foreign investment in the United States grew by 19.4% between 1975 and 1979. Japan now occupies two seats on the New York Stock Exchange.
- Inflation has slowed from a peak of 9.6% per year in 1981 to 3.8% in 1984. Between 1981 and 1983 unemployment increased by 22%.

- Overall unemployment decreased 22% between 1983 and 1984, however, unemployment rates for blacks remain more than twice that for whites. The decline in unemployment for blacks between 1983 and 1984 was significantly less than the decline for whites.

- The federal budget deficit has increased from $15.8 billion in 1981 to $175.2 billion in 1984.

- The proposed federal budget for fiscal 1986 eliminates the revenue sharing program entirely; 25% of student loans; all school breakfasts and lunches for children whose family earnings exceed $19,000 per year; and 2.4% of the Aid to Families with Dependent Children program.

- Over the last decade federal aid to public education has decreased 19% and the current proposed budget would implement further cuts.

- The combination of the post World War II baby boom and the current declining birth rate will cause a 70% increase in the ratio of retired persons to workers in the near future.

- Of the nation's 16.4 elderly women, 17% live in poverty as compared with 10% of elderly men.

- It is estimated that 50% of all children alive today will live in a one parent home for a significant portion of their lives.

- The New Federalism begun under President Nixon coupled with deteriorating confidence in our institutions has given rise to a new wave of "private arrangements" and individualism.

- Disparities in the birth rates and higher immigration rates of persons from Third World countries will mean that the next generation of school children will be more racially mixed than in any previous generations.

- There has been a shift in the locus of economic development and population growth from the northeast to the south and southwest - primarily Florida, Texas and California.

- The older northeast and north central cities are declining (in terms of population, businesses relocating and in the number of highly skilled professionals) and will be hardest hit if the federal revenue sharing program is abolished.

- The northeast is also experiencing a "brain-drain". The west now has the best educated population.

- The decade of the 1960s ushered in the Civil Rights era which had a liberating effect on all sectors of society. For that reason we are seeing an irreversible trend toward unprecedented diversity which affects every aspect of human endeavor.

- During the last decade there has been a trend toward global interdependence created by shifts in control of human, capital, natural and information/knowledge resources.

- The majority of the new jobs which will be created will be either professional/technical or unskilled service jobs. This fact will exacerbate a growing polarity in society.

These trends have important implications for education. A few examples will illustrate:

- The new information society will require better educated generalists who are creative and can integrate, interpret and evaluate information.

- A more diverse school population may require instructional solutions not yet identified. The "back to basics," "fewer options" prescriptions advocated by some educational pundits may simply not fit.

- Foreign languages will need to receive greater emphasis in view of increasing global interdependence.

- Planning to accomodate life-long learning needs of a rapidly changing, diverse society will be a necessity.

- New ways of financing public education will have to be devised.

- An increasing variety of enterprises will become involved in education in order to retrain workers with outmoded skills and provide compensatory instruction for educationally deficient workers. Collaboration between the educational establishment and the "new educators" will be no longer a luxury but a necessity.

- The growing variety of family structures; increased family stress created by unemployment, two working parent families and generally shifting parental roles; and increasing pressure on children to grapple with adult problems will negatively affect many students' ability to cope and learn. It will fall largely to the schools to address the effects of these stresses on children in order to educate them effectively.

Sources:

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GOVERNANCE OF PUBLIC ELEMENTARY AND SECONDARY EDUCATION

The Constitution of the Commonwealth of Massachusetts provides for universal public education supported by public funds and assigns responsibility at both the state and local levels.

State level responsibility is delegated to a lay board established by General Laws Chapter 15, Section 1B added by the Willis-Harrington Act. The Board consists of eleven persons appointed by the Governor, including a member of a labor organization affiliated with the State Labor Council; as well as a student elected by the student advisory council; and the Chancellor of the Board of Regents of Higher Education (ex officio). The Commissioner of Education serves as secretary to the Board. The chair and vice-chair are elected by majority vote of the board members. A full term of appointment for a board member is five years, and appointed board members are limited to two full terms.

It is the role of the State Board of Education to "...support, serve and plan general education in the public schools, and through its division of occupational education to administer and supervise the administration of vocational education programs by every agency in the Commonwealth." (General Laws Chapter 15, Section 1G.) In general, this involves setting policy and regulations; ensuring compliance with state and federal laws, distributing state and federal funds; and overseeing the work of the Commissioner.

As the chief executive officer and the chief state school officer, the Commissioner's role is to implement the policies of the Board of Education; to manage the Department of Education; to achieve the Board's objectives and to provide educational leadership for public elementary and secondary education. In general the Commissioner "...shall have supervision of all educational work supported in whole or in part by the Commonwealth." (General Laws Chapter 69, Section 1.)

Under Chapter 71 of the General Laws, every city and town must maintain a sufficient number of schools for the instruction of all children who may legally attend a public school therein. An elected school committee in each city or town is charged with overseeing its public schools. State law also provides for the establishment of regional school districts, consolidating the governance of public schools that serve two or more communities.

Parents and other citizens are encouraged to become involved in educational decisions through participation in parent teacher organizations, advisory councils, task forces and public meetings on education.

DEPARTMENT OF EDUCATION

The Department of Education is the operating arm of the Board of Education. Under the direction of the Commissioner, Department staff are charged with implementing board policies and other directives, insuring compliance with state and federal laws and providing a variety of assistance to local school districts. In carrying out these responsibilities the Department performs seven major functions translated into over 160 programs and services:

- direct services (e.g. Bureau of Institutional Schools)
- dissemination of information and reporting
- distribution of state and federal funds (primarily through the grants process)
- leadership (identifying educational issues and initiating actions to address them)
- monitoring and auditing
- research
- technical assistance (providing training for educational personnel, problem-solving, information and other support services to local school districts and community organizations and state agencies)

Most of the Department's programs and services are delivered through six regional education centers located throughout the state.

The Commissioner and his executive committee comprise the administrative staff of the Department. The members are:

The Commissioner

The Executive Deputy

The Executive Assistant

The Deputy for Program Operations

The Associate Commissioners

The Legal Counsel

The Executive Planner

The Director of the Bureau of Equal Educational Opportunity

The Director of Media Relations

Department operations are directed by the Deputy for Program Operations and are accomplished through five divisions, each headed by an associate commissioner and six regional education centers each headed by a director. The divisions and regional centers are listed below:

DIVISIONS

Division of Administration and Personnel
Division of Curriculum and Instruction
Division of Occupational Education
Division of School Facilities and Related Services
Division of Special Education

REGIONAL EDUCATION CENTERS

Central Massachusetts Regional Education Center
Greater Boston Regional Education Center
Northeast Regional Education Center
Northwest Regional Education Center
Southeast Regional Education Center
Springfield Regional Education Center

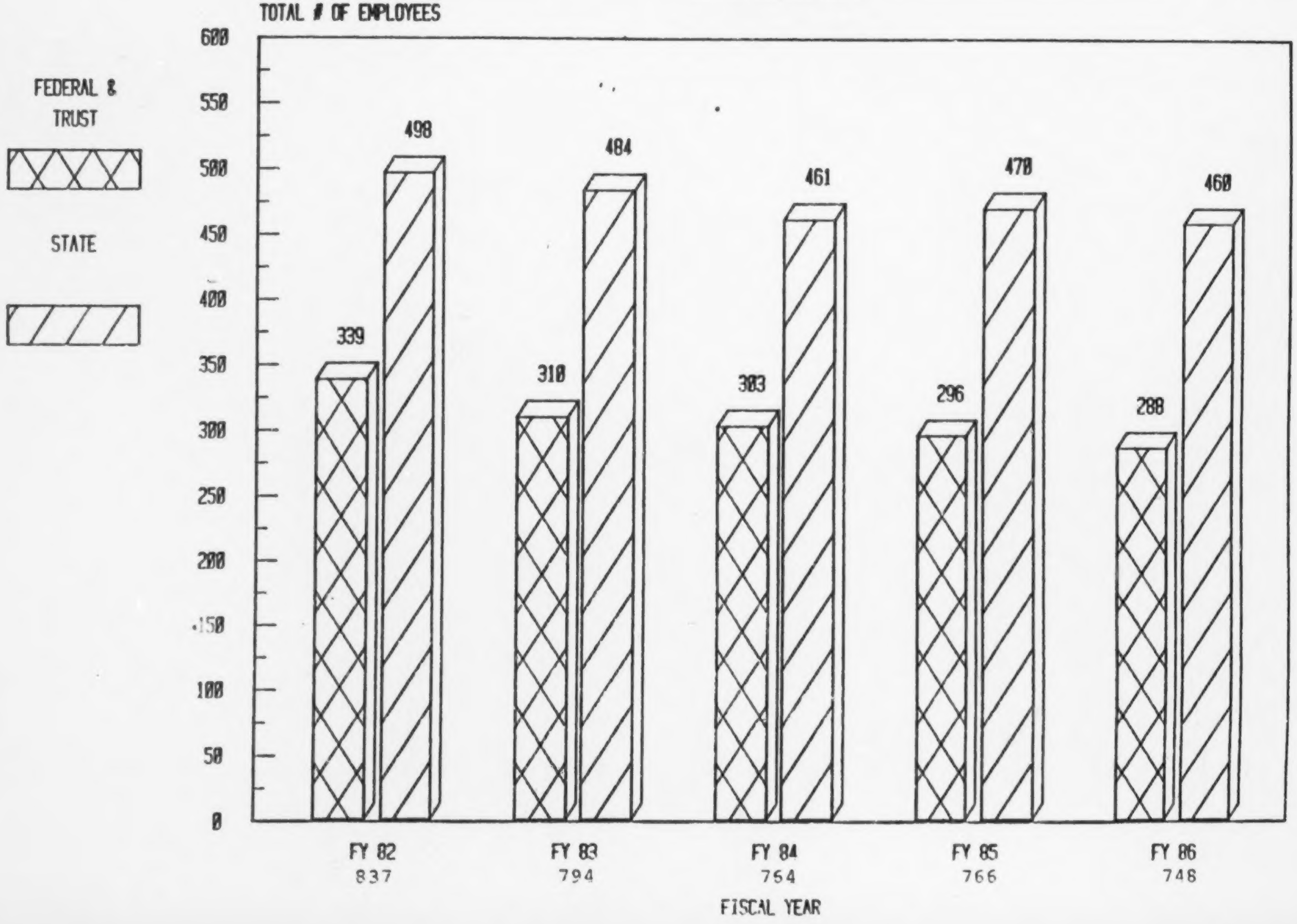
Department of Education Budget

State	FY'83	% Total	FY'84	% Total	FY'85	% Total	% Change Per Year
Operating	14,276,154	1.2	15,165,215	1.1	16,005,630	1.0	+ 3.9
Direct Service	6,315,000	.53	6,424,074	.47	6,994,335	.46	+ 3.5
Local aid and Direct Payment	1,005,490,226	83.9	1,145,060,075	83.4	1,294,071,701	84.3	+ 8.8
Total State	1,026,081,380	85.7	1,166,649.364	84.9	1,317,071,666	85.8	+ 8.7
Federal	171,757,476	14.3	207,133,000	15.1	218,333,500	14.2	+ 8.3
Grand Total	1,197,838,856	100.0	1,373,782,364	100.0	1,535,405,166	100.0	+ 8.6

Source: Budget data
Division of Administration and Personnel
Department of Education

TOTAL EMPLOYEES BY FUND SOURCE

STATE/FEDERAL&TRUST



Department of Education Staffing - Equal Employment Indicators

	1983			1984			CURRENT		
	% Minority	% Female	% Minority Female	% Minority	% Female	% Minority Female	% Minority	% Female	% Minority Female
Management	10%	31%	16.6%	12%	34%	19.2%	13%	37%	21.4%
Professional	12%	56%	12.7%	13%	56%	13.9%	14%	57%	14.9%
Clerical	18%	94.7%	17%	14%	95%	13.6%	13%	94%	12.4%

Source: Affirmative Action Data
Division of Administration and Personnel
Department of Education

Programs and Services - Division of Administration and Personnel

Fiscal Affairs Office

Provides for the design, implementation and operation of Department budget and monitoring systems.
Authorizes Department contracts for professional services.
Reviews grant requests.
Oversees Department business operations.

Personnel and Labor Relations Bureau

Manages human resources.
Maintains staffing, classification and other personnel management information.
Processes personnel actions.
Manages Personnel Management Information System.
Advises management on labor relations.
Administers affirmative action program.
Promulgates personnel policy and conducts employee training.
Represents Department at personnel hearings.
Serves as liaison with:
  Department of Personnel Administration
  Civil Service Commission
  Office of Employee Relations
  Conducts staff training

Data Collection and Processing Bureau

Fall Statistical Reports

Collects and processes fall statistical reports and provides statistical information to state agencies, school districts, legislators and general public on education.

Local Aid and Financial Information

Calculates state aid for education and provides financial information upon request.

Operational Support Bureau

Office Automation

Coordinates acquisition of word processing and other related office systems for Department units.

Coordinates implementation of word processing and other related office systems.

Publications

Provides editorial and technical assistance in preparing, producing, and disseminating agency publications.
Publishes agency newsletters
Common Wealth
Harbinger
Annual Report

Major Data Bases

- Kind of Community Research
- Statistical Research
- LEA Profiles
- End of Year Reports
- October Reports
- Chapter 70 Formulas
- Budget Analysis
- Budget Development
- Employee Referrals

Programs and Services - Division of Curriculum and Instruction

Commonwealth Inservice Institute

Administers school - based, participant-controlled inservice education programs. Provides technical assistance for specific programs through appropriate regional centers.

Educational Resources and Television Bureau

Conducts programs in curriculum resource referrals, instructional television, instructional technology, and resource-related publications. Provides technical assistance to units within the Department of Education and to school districts.

Communications and Training

Coordinates outreach training and promotion related to all bureau program areas, including relations with other department units and outside organizations. Produces and distributes promotional and resource printed materials.

Instructional Technology

Provides technical assistance to other Department of Education units and to school districts in the implementation of instructional technology programs, including the use of computers, and the production and distribution of instructional software.

Massachusetts Educational Television (MET)

Administers and provides over 1,000 educational television programs and support print materials to all schools in the Commonwealth via open-air broadcast (Channel 2 in Boston and Channel 57 in Springfield). Assists schools in expanding their use of MET programs via non-broadcast distribution, e.g. cable, tape duplication, cassette loan, and utilization lab.

Resource Information Referral

Provides information and materials in school curriculum areas, noncurricular areas, and cross-curricular issues. Offers technical assistance in finding resources and descriptions of successful programs and curriculum practices, names of consultants, research results, and bibliographies.

Research and Assessment Bureau

Develops and disseminates tests for all skill areas of Basic Skills Improvement Policy. Assists schools in policy implementation by visits, workshops, test approvals, and publications. Conducts statewide assessment programs in Basic Skills. Develops evaluation instruments for programs and policies. Maintains information on national and state wide College Entrance Examination Board (SAT) test scores.

School Programs Bureau

Administers and provides technical assistance to local school districts for major education programs including Title IV (ECIA, Chapter 1), Title II and Title IV (ESEA, Chapter 2), METCO, Chapter 636, Gifted and Talented, and Basic Skills.

Student Community, and Adult Services Bureau

Administers programs and provides technical assistance in Adult Basic Education, community education, health education, human development, and physical education, student services, High School Equivalency (GED), correspondence courses, guidance and counseling, and immigration and Americanization.

Teacher Preparation, Certification, and Placement Bureau

Issues teaching certificates to those who apply and qualify. Reviews and recommends approval of teacher preparatory programs at Massachusetts Colleges and Universities. Provides placement information for registered applicants.

Transitional Bilingual Education Bureau

Responsible for administering, monitoring, and providing technical assistance for state and federal bilingual education programs and programs for national origin desegregation assistance, refugees, and children of migratory workers. Certifies teachers of transitional bilingual education, English as a Second Language and modern foreign languages.

Major Data Bases

Basic Skills
Teacher Certification
Resource Banks
Commonwealth Inservice Institute
Adult Education
Gifted and Talented Programs

Programs and Services - Division of Occupational Education

Administrative Services Bureau

Directs and supervises operations and management activities.
Approves non-resident tuitions.
Provides support services for five other bureaus.
Monitors occupational education legislation.

Education, Training and Employment Bureau

Provided technical assistance through regional staff and coordination related to the Job Training and Partnership Act.
Implements the Public School Youth, Education and Employment policy.
Oversees school to work transition programs.

Financial Management Bureau

Manages the fiscal activities, reporting, data collection, data analysis and E.D.P. activities - including the formula for distribution of Public Law 94-482 funds.
Sets non-resident tuition rates.
Implements computerized grants management system.
Conducts legislative impact studies.

Massachusetts Firefighting Academy

Recruits and trains firefighters for the Commonwealth.
Provides inservice training.
Provides fire service management training.
Provides public fire education programs.
Provides industrial fire training.
Provides special staff training in fire safety and prevention for the mentally retarded.

Planning, Research and Evaluation Bureau

Produces the Annual Accountability Report and State Plan.
Administers the statewide evaluation program.
Conducts long-range planning.
Coordinates research, the development of innovative programs and curriculum dissemination.

Post Secondary Occupational Technical Education Bureau

Administers adult occupational training grant program.
Administers community college occuptional training grant program.
Administers apprenticeship training related instruction grants.
Licenses and regulates private occupational schools.

Program Services Bureau

- Provides technical assistance through regional education centers for developing, evaluating and improving vocational education programs.
- Monitors, reviews and approves Chapter 74 and PL 94-482 programs.
- Provides technical assistance in the area of educational equity.
- Provides technical assistance to school districts in areas of guidance, counseling and career education.
- Provides professional development activities.
- Approves credentials of instructors.
- Provides competency based vocational curricula.
- Provides services to vocational student organizations.

Major Data Bases

- Community College Enrollment, Staff, Graduates
- Chapter 74 Approved Programs
- Vocational Education Data System
- Nonresident Tuition Calculations
- Nonresident Student Approvals
- Federal Funds Availability

Programs and Services - Division of School Facilities and Related Services

School Building Assistance Bureau

Provides technical assistance to cities, towns, counties and regional school districts on new construction, additions, renovations, acquisitions, et cetera.
Processes grants for new school construction.
Administers state and federal asbestos programs.
Assists communities with facilities problems related to changes in enrollment.
Recommends funds for surveys of school building needs and conditions.
Administers approvals for lease of surplus space in schools.

School District Reorganization and Collaboration Bureau

Provides technical assistance to municipal and local school officials in establishing:

academic and vocational regional school districts;
extension and expansion of partial regional school districts;
reorganization and dissolution of school unions;
formation and reorganization of educational collaboratives.

School Management Services Bureau

Provides technical assistance to local school districts.
Assists LEAs in solving problems in school management.
Prepares and distributes energy conservation information.
Prepares guidelines, arranges for seminars and workshops for the collection of information on End-of-Year Reports and Fall Statistical Reports.
Disseminates management information data.
Provides assistance to school districts in order to promote cost-effective and efficient school transportation services.

Nutrition Education and School Food Services Bureau

Provides technical assistance and administers feeding programs for public and nonprofit private schools; institutions; child care agencies; summer camps, and elderly persons.
Assists schools in expanding food service operations.
Develops, promotes, supervises, and coordinates nutrition education.

Accounting Section

Reviews school budgets; performs audit for verification of claims submitted; provides fiscal and managerial technical assistance for nutrition programs and processes reimbursement claims.

Commodity Distribution Section

Administers food distribution across the Commonwealth.
Distributes surplus donated from U.S. Dept. of Agriculture to eligible recipients.

Nutrition Education Section

Coordinates nutrition education in Commonwealth's schools and conducts nutrition workshops for school and child care personnel, teachers and administrators.

School Food Service Section

Administers school lunch, special milk, and elderly feeding programs for public and private nonprofit schools, institutions and elderly persons.
Approves applications for feeding programs.
Provides technical assistance on regulations compliance.
Reviews schools and institutions for program compliance.

Special Food Services Section

Administers child care food, summer food, and special milk programs in child care centers and camps; and approves all new and existing programs.
Provides technical assistance in layout, design and selection of kitchen equipment.

External Audit Bureau

Conducts required audits of state and federal programs.

Programs and Services - Division of Special Education

Institutional Schools Bureau

Provides special education services to children residing in institutions under the control of:
Department of Mental Health
Public Health
Youth Services
County House of Corrections

Administers state and federal funds for special education children in institutions.
Coordinates transportation for mentally retarded adults to Department of Mental Health programs.

Management Bureau

Provides fiscal and accounting support for all special education expenditures; administers federal funds for programs; maintains private school placement registry for state tuitioned students.
Coordinates transportation services for state tuitioned students in private schools.

Program Audit and Assistance Bureau

Monitors special education programs in public and private schools including follow-up on problem areas; noncompliance issues, and initiation of legal actions and sanctions regarding noncompliance.
Develops and expands programs to ensure equal access for hard to serve special education students in public and private schools, eg. vocational/special education, bilingual special education, low incidence populations.
Determines local school district assignments.
Approves private special education schools.
Coordinates the setting of tuitions with the Massachusetts Rate Setting Commission.

Program Development and Evaluation Bureau

Spearheads the Division of Special Education efforts to create new programs, improve existing programs, facilitate inservice training in educational issues for parents and professionals, and evaluate programs and practices.
Develops and shares resources on new ways to improve the quality of special education programs in Massachusetts in a fiscally responsible manner.

Directs resources toward program development in several areas:
Early Childhood programs for three and four year old handicapped children
Encouraging the use of technology in Special Education,
Inservice training for school staff and
Improving program evaluation practices.

Provides special education technical assistance and manages collection, analysis, and dissemination of special education data.

Special Education Appeals Bureau

Provides an impartial mediation and hearing process for parents who reject the special education plan offered by the school system.
Provides training to educational advocates who represent children in special education.
Conducts workshops to educate parents on 766 hearing process.

Major Data Bases

Bureau of Institutional Schools Census FY'85
State Hospital Educational Programs
Special Education Mailing List
Department of Mental Health Transportation Vendors
Private School Student Records
Private School Programs FY'84 and FY'85
Historical Prototype Date
Local School District Census
Transportation Client Data for Chapter 750, DMH adults, DPH 0-3 years.
Performance Data for P.L. 89-313, P.L. 94-142, early childhood education project
Early Childhood Education Resource Directory (for special needs children)
Special Education Resource Directory
Vision Resource Library Catalog, text material; inventory, inter-library loan information

MAJOR STUDIES AND REPORTS

CURRICULUM AND INSTRUCTION

TDR/NIE Knowledge Use Study Update
March 8, 1982

Curriculum Survey, D.O.E.
(In Progress)

OCCUPATIONAL EDUCATION

Employer Satisfaction Study, Final Report
TDR Associates, 1982

Evaluation of Vocational Teacher Training, Final Report
LOGOS Research Institutes, 1981

You Want to be a What?: Sex Equity
in Massachusetts Vocational Programs, Final Report
American Institute for Research, 1981

A Study of the Validity of Admission Criteria Utilized by
Selected Secondary Vocational Schools, Final Report
TDR Associates, 1984

SPECIAL EDUCATION

Third Party Evaluation of the Early Childhood Project:
Regional Specialist Program
Vazquez-Nuttall Assoc., Inc., 1981

Third Party Evaluation of the Early Childhood Project: Data
Analysis and Case Studies
Vazquez-Nuttall Assoc., Inc. 1981

Third Party Evaluation of the Early Childhood Project: Mini-Grant
Program
Vazquez-Nuttall Assoc., Inc., 1981

Interagency Coordination of Services for Young Children in
Massachusetts: Review and Evaluation
Matthew-McDonough and Daniel Burke, 1980

Multi-Agency Team Operating Manual
Brockton Area Human Resource Group, Inc., 1980

Birth to Six Project, Brockton Area Human Resources Group, Inc., 1979

Evaluation of Field Test Sites for Coordinated Interagency
Services for Children with Special Needs in Massachusetts, LOGOS
Research Institutes, Inc., 1979.

A Study of Special Education Program Evaluation Systems Used by Local
School Districts, ABT Associates (In Progress)

OFFICE OF EXECUTIVE PLANNING

Evaluation of Educational Personnel,
Board of Education Study Committee, 1980.

Middle School Junior High School Education,
Board of Education Study Committee, 1980

Student Achievement and Effective Schools,
Board of Education Study Committee, 1983

Report on Early Childhood Education,
OEP Staff, 1984

TRENDS

- Between fiscal years 1977 and 1983 the Department of Education operating budget from state funds declined 3.7% per year, the number of staff declined 3% per year and programs, services and mandated responsibilities increased each year. These declines occurred during a period when inflation increased 60% and peaked at 9.6% in 1981.

- Between fiscal years 1983 and 1985 the Agency operating budget declined as a percentage of the total state share of public elementary and secondary education from 1.4% to 1.2%. The total state share, however, increased 28.4% during this period thus funds distributed and monitored by the Department increased while resources to carry out these responsibilities decreased.

- Between fiscal years 1983 and 1985 the operating budget increased approximately at the rate of inflation (approximately 3.8-4%) while staff salaries increased 5% - 7% per year. (Most salaries are determined by union contract.)

- Although federal funds for programs have increased modestly, the percentage of those funds allowed for administrative costs has remained the same in some programs, decreased in others and even disappeared in still others while the cost of administering these funds has increased substantially. The Agency has already been notified of further restrictions and decreases for future years.

- Over the last decade the focus of the Agency has gradually shifted from compliance and monitoring to technical assistance.

MASSACHUSETTS CHARACTERISTICS

Table A-1

Massachusetts Characteristics - Rankings

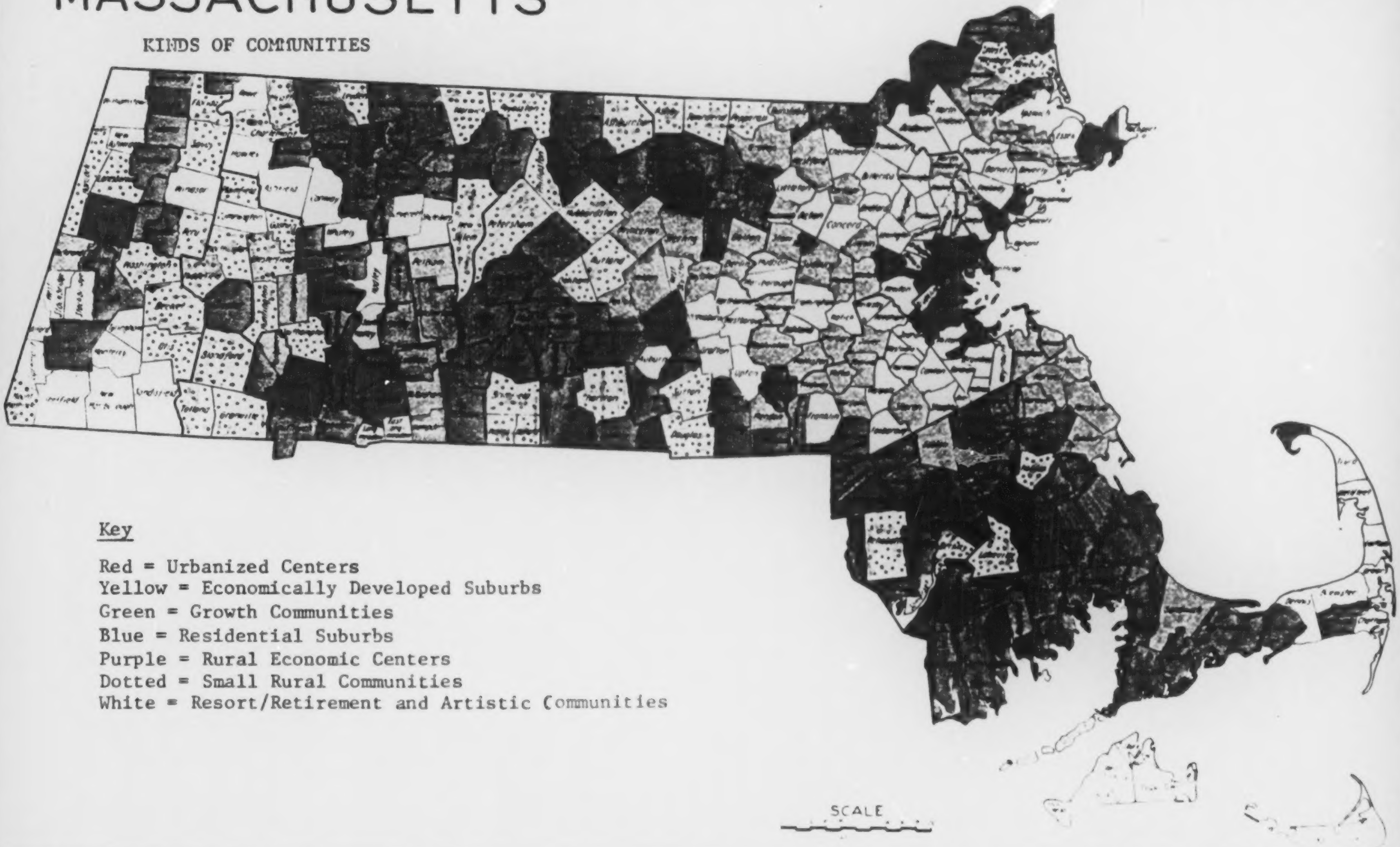
Characteristics	Mass. Rank	Mass. Value	U.S. Value
Total Population, 1982	11	5,781,000	231,534,000
Land Area	45	7,824	3,539,295
Percent Change in Population 1972-82	47	0.33	10.6
Population/Square Mile, 1980	3	733.3	64.0
Median age	7	31.1	30.0
Percent of Population, 65+	10	12.7	11.3
Percent of Population, Non White	35	6.5	16.9
Black	28	3.9	11.7
Asian	14	0.9	1.5
Native American	39	0.1	0.6
Percent of Population, Spanish	18	2.5	6.4
Percent of Population Living in Metropoliton Area	8	85.3	74.7
Percent of Total Persons Living in Another State in 1975	44	7.0	9.7
Birth Rate/1000 Persons, 1979	50	12.2	15.9
Marriage Rate/1000 Persons, 1980	43	8.5	10.9
Divorce Rate/1000 Persons, 1980	48	2.9	5.3
Death Rate/1000 Persons, 1980	14	9.0	8.5
Percent Housing Built Prior to 1940	2	47.3	25.8
Percent Homeownership, 1980	47	57.5	64.4
Crime Rate/1000 Persons, 1981	19	5,835	5,800
Percent High School Graduates, Aged 25 yrs. +, 1980	17	72.2	66.5

Percent Employed in Manufacturing, 1979	14	26.0	22.4
Average Weekly Earnings of Production Workers in Manufacturing, 1981	35	$ 280.00	$318.0
Per Capita Household Income, 1979	19	$17,575.00	$16,841.0
Per Capita Personal Income, 1982	13	$11,128.00	$10,491.0
Percent Change in Per Capita Personal Income, 1971 to 1981	43	143.0	151.8
Percent of Persons below Poverty Level, 1979	43	9.6	12.4
Construction Contracts, 1981	17	3.2 Bil.	150.2 Bil.
Manufacturing Employment, 1980 -Export Related as a Percent of the Total Private Sector Employment	7	4.7	3.6
-Defense Related as a Percent of all Manufacturing Employment	6	6.9	3.6

Source: NEA, Rankings of the States, 1984

MASSACHUSETTS

KINDS OF COMMUNITIES



Key

Red = Urbanized Centers
Yellow = Economically Developed Suburbs
Green = Growth Communities
Blue = Residential Suburbs
Purple = Rural Economic Centers
Dotted = Small Rural Communities
White = Resort/Retirement and Artistic Communities

Table A-2

Overview of Kinds of Communmities (KOC) in Massachusetts

KOC	Description of KOC	Number of Communities in KOC	Most/Least Typical of KOC
1	Manufacturing and commercial centers; densely populated; culturally diverse	45	Haverhill/ Provincetown
2	Suburbs with high levels of economic activity, social complexity; and relatively high income levels	59	Ashland/ Brookline
3	Rapidly expanding communities in transition	46	Norton/ Harvard
4	Affluent communities with low levels of economic activity	53	Scituate/ Lincoln
5	Historic manufacturing and commercial communities; moderate levels of economic activity	61	Millbury/ Monroe
6	Small towns; sparsely populated; economically undeveloped	46	Hubbardston/ Mt.Washington
7	Communities with high property values; relatively low income levels, and enclaves of retirees, artists, vacationers and academicians.	41	Egremont/ Rowe

Source: Department of Education Kind of Community Classification developed in Fiscal 1985 based on data from the 1980 Census, Department of Revenue and Division of Employment Security.

Table A-3

Seven Kinds of Communities in Massachusetts: Their Median Ranking* on Selected Demographic Social and Economic Factors, 1980

*(1 = Strong, 351 = Weak on Factor)

Factors:	Kind of Community						
	1	2	3	4	5	6	7
1984 Equalized Property Valuation/Capita	295	127	207	115	286	193	35
Percent High Income Households	255	78	186	47	258	269	136
Percent Low Income Households	44	261	204	315	116	149	95
Percent of Adults With Some College	292	133	178	52	271	212	93
Index of Manufacturing	44	73	210	203	150	282	296
Index of Commercial Activity	40	86	176	232	196	302	212
Residential % of Property Valuation	287	251	170	89	211	78	104
Unemployment Rate	91	265	128	286	117	61	235
Percent Residents Who Rent	28	178	184	298	120	260	132
Percent Housing Built Pre 1940	51	220	280	261	108	163	107
Percent Minority	48	139	112	203	260	267	212
Percent Aged 5+ Years Foreign Language Speaking	36	157	126	263	178	240	254
Percent Aged 5-17 Years	279	189	119	67	166	110	310

Percent Change in Population 1970 -1980	298	259	84	165	203	70	91
Population Density/Sq.Mile	50	60	174	168	212	307	293

Source: 1980 Census, Department of Revenue, Division of Employment Security and Department of Public Health.

Table A-4

Median Percent Weighted Full-time Equivalent Pupils (WFTE) Per Capita by Kind of Community (KOC)

KOC	Description	Median Percent WFTE/Capita
1	Urbanized Centers	20.0
2	Economically Developed Suburbs	19.7
3	Growth Communities	23.7
4	Residential Suburbs	23.1
5	Rural Economic Centers	22.4
6	Small Rural Communities	25.4
7	Resort/Retirement and Artistic Communities	17.3

Source: End-of-Year Report, 1983-84

Table A-5

Median Non Public Percent of Total School Attending Children (SAC) for 1984 by Kind of Community (KOC)

KOC	Description	Median Non Public Percent of Total SAC
1	Urbanized Centers	14.3
2	Economically Developed Suburbs	11.2
3	Growth Communities	5.6
4	Residential Suburbs	7.4
5	Rural Economic Centers	5.8
6	Small Rural Communities	3.7
7	Resort/Retirement and Artistic Communities	5.4

Source: School Attending Child Report, 1984

Table A-6

Number, Percent of Total and Percent Change for Selected Age Categories of Massachusetts Residents, 1970 - 1980

TOTAL	Percent 1970	of Total	Percent 1980	Percent of Total	Change
Total	5,689,170	100.0	5,737,037	100.0	0.8
Under 5 Years	470,066	8.3	336,615	5.9	-28.4
5 to 19 Years	1,612,313	28.3	1,384,141	24.1	-14.2
20 to 64 years	2,970,606	52.2	3,290,162	57.3	10.8
65 Years and Over	636,185	11.2	726,119	12.7	14.1

Source: 1980 Census

Table A-7

Number of Types of Public Schools and Percent Change, Fiscal Years 1981, 1982, 1983, 1984

Type of School	Fiscal Year				Percent Change
	1981	1982	1983	1984	1981-1984
Kindergarten (N,K)	34	19	15	15	-55.9
Primary (K-4)	334	282	272	268	-19.8
Elementary (K-8)	1,094	959	928	899	-17.8
Middle (5-8)	145	141	138	139	-4.1
Junior High (7-9)	175	164	160	153	-12.6
3-Yr. High (10-12)	59	59	59	59	0.0
4 Yr. High (9-12)	145	146	146	146	0.7
6 Yr. High (7-12)	50	50	50	50	0.0
Vocational High (9-12)	27	27	27	26	-3.7
Vocational Technical High (9-14)	23	23	23	23	0.0
Special School	38	32	30	28	-26.3
Other	52	11	20	21	-59.6
Total	2,176	1,913	1,868	1,827	-16.0

Source: School System Summary Reports, 1981-1984

Table A-8

Comparison of Massachusetts with Other N.E.R.E.X. Member States in Per Capita Income, Persons Below Poverty Level and Persons Speaking Language Other Than English at Home

STATE	1979 Per Capita Income Level	Percent Persons Below Poverty	Percent Speaking Language Other Than English at Home
Massachusetts	7,458	9.6	13.0
Connecticut	8,511	8.0	14.3
Maine	5,748	13.0	10.8
New Hampshire	6,966	8.5	10.4
New York	7,498	13.4	20.1
Rhode Island	6,897	10.3	16.5
Vermont	6,178	8.0	6.6

Source: 1980 Census

Table A-9

1979 Massachusetts Income by Number of Households, Families and Unrelated Individuals

Income Level	Number of Households	Number of Families	Numbers of Unrelated Individuals 15 years +
Less than 5,000	259,405	85,624	128,466
5,000 to 7,499	155,202	80,230	60,954
7,500 to 9,999	149,068	86,854	172,152
10,000 to 14,999	296,284	193,355	136,101
15,000 to 19,999	290,052	219,398	75,040
20,000 to 24,999	262,553	221,781	142,770
25,000 to 34,999	334,626	298,443	117,196
35,000 to 49,999	189,242	172,084	31,324
50,000 +	96,144	86,714	5,219
Median ($)	17,575	21,166	6,491
Mean ($)	20,746	24,109	8,871

Note: Households - Families and/or individuals living under the same roof.

Families - Mother and/or father, or guardian, children

Unrelated individuals - One or more unrelated individuals living together

Source: 1980 Census

Table A-10

Number and Kinds of Persons Living Below Poverty Level in Massachusetts, 1979

	Number of Families	Percent of Total
Total Families Below Poverty*	110,038	100.0
With Children Under 18 Years	86,156	78.3
With Children 5 - 17 Years	66,893	60.8
Female Householder No Husband Present	61,813	56.2
With Related Children Under 18	56,767	51.6
With Related Children Under 6	28,935	26.3
Householder 65 Years +	11,851	10.8

*7.6% of all families in Massachusetts (1,444,985) are below poverty level.

Source: 1980 Census

Table A-11

Number and Percent Change in Families With Own Children, 1970 - 1980

Family Type	1970	1980	Percent Change 1970-1980
Families	1,387,932	1,444,985	4.1
With Own Children Under 18 Years	746,859	719,435	-3.7
Married-Couple Families	1,176,251	1,170,276	-0.5
With Own Children Under 18 Years	661,083	579,358	-12.4
Female Householder, No Husband Present	168,530	225,139	33.6
With Own Children Under 18 Years	76,964	125,890	63.6

Source: 1980 Census

Table A-12

Massachusetts Industry Employment Shares Projected for 1990

Non Manufacturing Total		75.0
-Wholesale/Retail Trade	22.0	
-Transportation/Communication/ Public Utilities	4.7	
-Financial/Insurance/Real Estate	6.2	
-Government	6.5	
-Services	31.8	
-Agriculture/Forest/Fisheries	0.5	
-Construction	3.2	
Manufacturing Total		25.00
Grand Total		100.00

Source: DES, Mass Employment: Projected Changes, 1980-1990.

TRENDS

- Massachusetts population increased, in absolute terms, by 47,867 persons between 1970 and 1980. However, when this figure is adjusted for births and deaths over the period, it shows an estimated outmigration from the state of - 145,225 persons.

- Only three Massachusetts cities increased in population after adjusting for births and deaths over the decade. The remaining number of cities and their estimated outmigration between 1970 and 1980 is:

  8 cities losing under 1,000 persons each
  7 cities losing between 1,000 and 4,999 persons
  13 cities losing between 5,000 and 9,999 persons
  6 cities losing more than 10,000 persons

- The median age of Massachusetts residents has increased from 29.0 years in 1970 to 31.2 years in 1980.

- There is an increasing number of Massachusetts voters without school age children.

- In 1979, 63.5% of the 4,460,209 Massachusetts residents sixteen years of age or older are in the labor force.

- About five percent of the Massachusetts civilian labor force is unemployed.

- By 1990, total wage and salary employment is expected to approach three million workers.

- Manufacturing employment numbered 677,000 workers in 1980 and is expected to increase to 743,000 or 25% of the total 1990 wage and salary employment.

- In 1990, 75% of employment will be in the non manufacturing sector. Major predicted trends for non manufacturing are:

  Growth in construction is predicted but not equal to the early 1970s peak.

  Service related industries are expected to account for 44% of expected growth.

  Wholesale/retail trade is expected to maintain its current approximate 22% share of total wage and salary employment.

  Finance, insurance and real estate are expected to increase by 17%.

  Government is expected to lose 8500 jobs however, most of this loss has already occurred.

- In terms of the occupational outlook in 1990, professional and technical occupations are expected to add 107,000 new job openings. Occupations increasing are:

    engineering (especially electrical) - 30%
    systems analysts - 73%
    programmers - 47%
    accounting/auditing-twice average for all occupations

- Employment in teaching will show no substantial changes. Annual replacement needs will occur in Massachusetts teaching positions but declining enrollment and local level budget limitations will mitigate these needs. Mathematics and science teacher openings will be the greatest.

- Between 1980-1990, more than 20% of all new job openings will occur in the health services industry.

    e.g. Registered Nurses will add 14,500 new openings.
    Therapists, radiology technologists and laboratory technicians demand will increase by 30%.

- Employment in sales occupations will increase to more than 200,000 by 1990.

    e.g. By 1990, 86,000 sales clerks will represent 43% of all sales workers.
    Manufacturer's sales representative positions will increase by 6,000.
    Insurance industry will represent more than 10% of total growth in sales personnel

- Clerical workers constitute the largest occupational group in Massachusetts. A projected increase of 65,000 workers is expected by 1990.

    e.g. Secretaries will increase by more than twice the average rate.
    Computer operators - 43%
    Peripheral data processing equipment operators - 32%
    Insurance, banking, accounting and general office clerks will grow substantially.

- By 1990, craft and kindred workers will represent 10% of Massachusetts total employment.

    e.g. Carpenters, electricians and plumbers - 7,000 additional openings.
    Computer service technicians-double the 1980 need.
    Office/home equipment repair - significant growth.

- Employment for semi skilled workers is expected to grow much slower than average or less than a 5% increase by 1990.

- The service occupations are expected to increase by 73,000 workers or 17% over the 1980 level.

  e.g. Food service occupations - 3,800 additional jobs.
  Non professional health occupations - from 37,000 to 44,000.
  Police and firefighters-slight employment declines.
  Security guards and personnel - 25% increase.

- The demand for laborers and unskilled workers will decrease.

- No growth is predicted for farm workers, the smallest occupational group in the Massachusetts economy.

- A continuing trend within Massachusetts is the inability of its rural areas to retain human, capital and employment resources.

- 60.8% of families living below the poverty level have school age children.

- 51.6% of families living below the poverty level are headed by females.

- 45% of all families headed by females and living below the poverty level have school age children.

- The number of families with own children under 18 years and headed by females increased 63.6% between 1970 and 1980.

- The number of married couples with their own children under 18 years and headed by females increased 63.6% between 1970 and 1980.

ENROLLMENT AND STUDENT COMPOSITION

Table B-1

Enrollment/Student Composition - Rankings

Characteristic	Mass. Rank	Mass. Value	U.S. Value
Public school enrollment, Fall 1983	14	879,258	39,401,474
Percent change in public school enrollment, Fall 1983	51	-3.27	-0.73
Fall 1983 enrollment in public schools as a percent of school age population, 1983	30	89.29	88.70
Fall 1980 private schools as a percent of total school enrollment	17	11.92	10.80
Pupils per square mile, 1981-1982	3	114.7	NA
Percent children under 18 years of age below poverty line, 1979	33	13.1	16.0
Percent of public and private elementary and secondary school enrollment participating in national school lunch program, 1981	31	58.01	57.59
Percent change in number of public and private school pupils participating in national school lunch program, 1980-1982	50	-46.44	-15.59

Sources: Census, 1980, Rankings of the States, 1984, NEA
Public Elementary and Secondary Education in the United States 1981-82: A Statistical Compenduim, NCES

Table B-2

Percent Change in Enrollment for United States Regions, Total United States and N.E.R.E.X. Member States, School Year 1982-83 to 1983-84

U.S. Regions:	Percent Change 1982-83 to 1983-84
New England	-3.64
Mideast	-2.51
Southeast	-0.55
Great Lakes	-1.98
Plains	-2.13
Southwest	-0.05
Rocky Mountains	.51
Far West	.30
U. S. Total	-1.20
N.E.R.E.X. Member States:	
Connecticut	-3.51
Maine	-2.35
Massachusetts	-4.98
New Hampshire	-1.00
Rhode Island	-2.28
Vermont	-0.52
New York	-2.65
N.E.R.E.X. Member Total	-3.07

Source: Estimates of School Statistics; 1983-84 as provided by the State Department of Education, NEA Data Search, April 1984.

Table B-3

Student Enrollment by Grade* for 1981-82, 1982-83 and 1983-84 School Year

Grade	**Year**		
	1981-1982	**1982-1983**	**1983-1984**
Kindergarten	56,908	57,404	57,718
1	60,490	60,075	61,638
2	59,038	57,115	56,578
3	60,383	58,079	56,644
4	65,097	59,824	58,068
5	72,298	64,687	60,008
6	77,107	72,315	65,058
7	78,035	77,813	73,807
8	78,232	76,924	76,397
9	83,729	80,824	80,291
10	82,707	79,923	75,987
11	81,497	76,670	74,193
12	78,561	74,577	70,088
Total	923,188	885,584	866,475

*Excluded are prekindergarten, un graded and post graduate years in vocational education programs.

Source: Individual School Reports,
October 1, 1981; 1982; 1983

Table B-4

Number and Percent of Full-time Equivalent Students by Program

Type Program	1981 - 1982	1982 - 1983	1983 - 1984
Regular Education	854,561.3 (90.0%)	811,837.0 (89.5%)	785,732.7 (89.7%)
Special Education	34,225.2 (3.6%)	36,858.7 (4%)	38,353.8 (4%)
Bilingual Education	14,346.7 (1.5%)	14,036.0 (1.5%)	15,023.0 (1.7%)
Occupational Education	49,441.6 (5%)	48,653.9 (5%)	46,191.0 (5%)
Total	952,574.8	911,385.6	885,300.5

Source: End of Year Report

Table B-5

Median Percent Change in Massachusetts Enrollment* Projected for 1989 by Kind of Community (KOC)

KOC	Description	Median Percentage Chang Projected for 1989
1	Urbanized Centers	-7.8
2	Economically Developed Suburbs	-14.3
3	Growth Communities	- 3.5
4	Residential suburbs	-10.5
5	Rural Economic Centers	-6.6
6	Small Rural Communities	4.4
7	Resort/Retirement and Artistic Communities	5.0

* Headcount

Source: School Attending Report and Massachusetts Department of Education Projection, 1984 - 1989

Table B-6

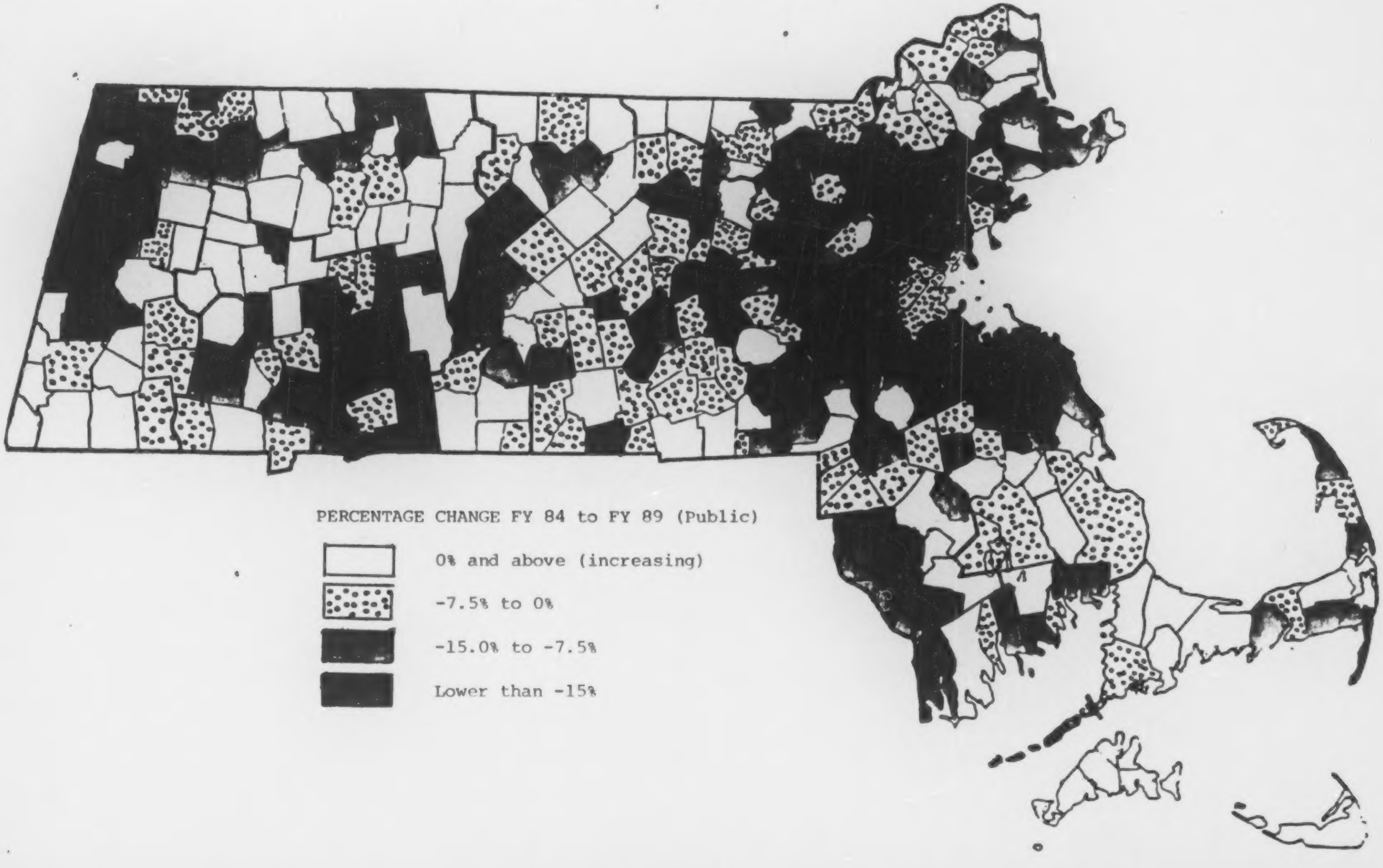
Massachusetts School Closings for Fiscal Years 1982, 1983 and 1984

Fiscal Year	Total Number of Schools	Number of Schools Closed
1981	2176	----
1982	1913	263
1983	1868	45
1984	1827	41
Total Number of Schools Closed		349

Source: School Directory Update

MASSACHUSETTS SCHOOL ATTENDING CHILDREN

Projected Change FY 1984 to FY 1989


PERCENTAGE CHANGE FY 84 to FY 89 (Public)
0% and above (increasing)
-7.5% to 0%
-15.0% to -7.5%
Lower than -15%

PROJECTED SCHOOL-ATTENDING CHILDREN

(K-12 % Change in Parentheses)

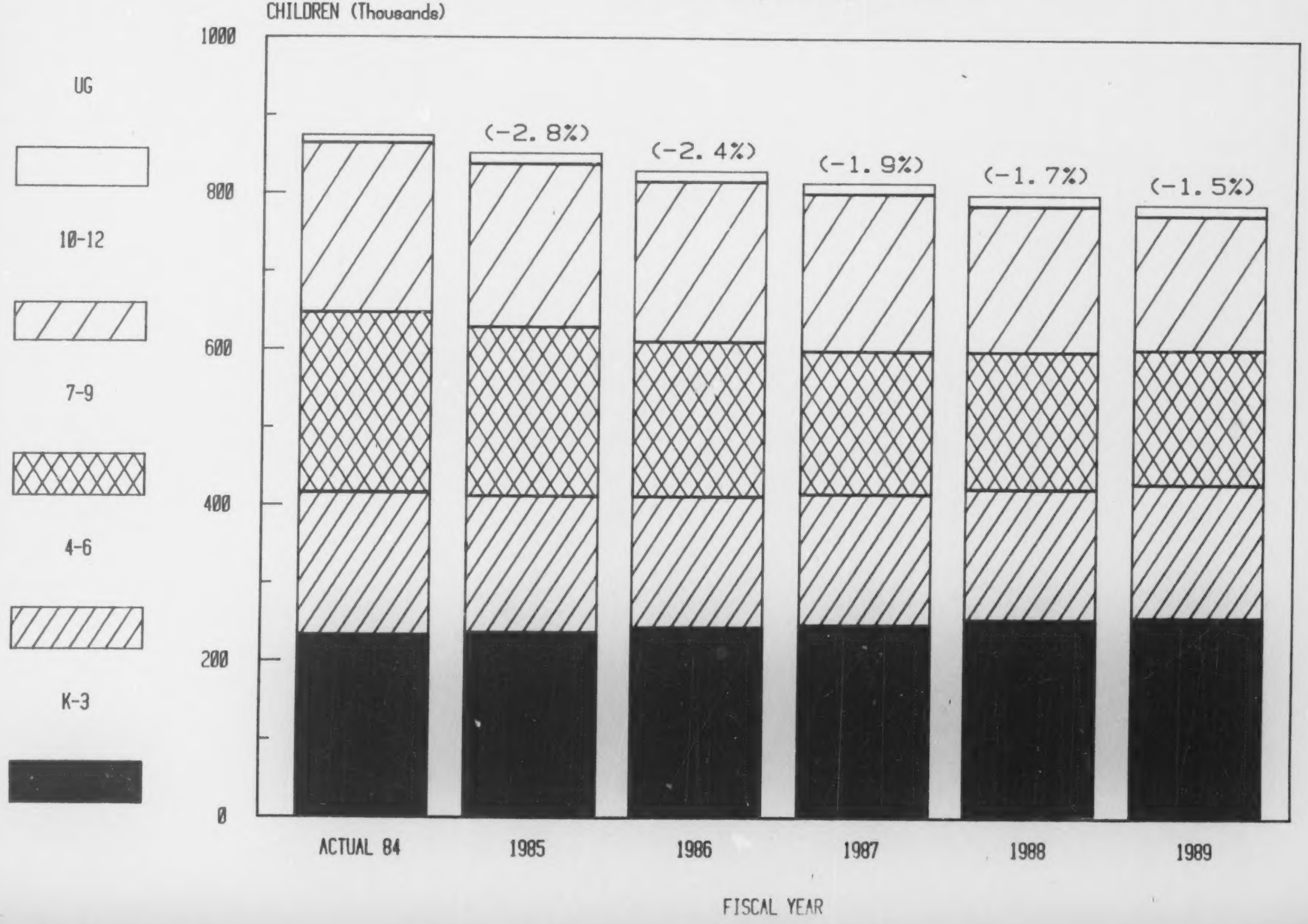


Table B-7

Percent of Students in Special Education By Grade Level, 1979-80 to 1983-84

Grade	1979-80	1980-81	1981-82	1982-83	1983-84
K-6	13.7	14.1	14.0	14.3	14.6
Middle/ Junior H.S.	12.2	13.0	13.3	13.7	11.8
High School	9.7	10.7	11.2	11.8	12.4

Source: School System Summary Report
Individual School Report

Table B-8

Overall Statewide Enrollments in Occupational Education Programs at the Secondary Level By Major Program Area, Fiscal Year 1983

Program	
Agriculture	1,797
Distributive Education	4,777
Health Occupations	2,308
Consumer and Homemaking (Occ. Prep. & Not Occ. Prep.)	2,802
Office Occupations	92,133
Technical Occupations	3,006
Trade and Industrial	39,191
Totals	146,014

Source: The Commonwealth of Massachusetts Annual Accountability Report for Vocational Education for Fiscal Year 1983, June 1984.

Table B-9

Characteristics of Massachusetts Adult Basic Education Students, Fiscal Year 1984

A. Age and Gender

Age	Male	Female	Total
16-24	6,713	5,505	12,218
25-44	6,195	7,234	13,423
45-59	1,290	1,774	3,363
60 +	246	305	551
Total	14,743	14,812	
		GRAND TOTAL	29,262

B. Initial Level of Educational Functioning by Racial Group

	Race					
Level:	White	Black	Hispanic	Asian	American Indian	Total
0-Grade 8	8,841	4,349	4,423	2,393	106	20,112
Grade 9 - 12	5,353	1,263	1,570	612	49	8,847
Total	14,194	5,612	5,993	3,005	155	28,959

Source: Survey of Attendees at Adult Learning Centers, 1984

Table B-10

Percentage of United States Participation in Adult Education by Age Level, 1981

Age Level	Percent
17-24 Years	18.5%
25-34 Years	35.3
35-44 Years	21.2
45-54 Years	13.3
55-64 Years	8.0
65 Years and Older	3.6

Source: NCES, 1981

Table B-11

Percentage of United States Participation in Adult Education by Income Level, 1981

Income Level	Percent
Under $7,500	8.1%
$ 7,500 to $ 9,900	4.1
$10,000 to $14,999	13.1
$15,000 to $19,999	13.1
$20,000 to $24,999	15.8
$25,000 to $49,999	34.4
$50,000 and Over	7.7
Not Reported	3.6

Source: NCES, 1981

Table B-12

Non-White Enrollment as a Percent of Total Enrollment from 1967-68 to 1983-84, Kindergarten through Secondary

Year	Total Enrollment	Non-White	Non-White % of Total
1967-68	1,075,564	47,227	4.4
1968-69	1,102,420	52,365	4.8
1969-70	1,134,015	55,357	4.9
1970-71	1,173,623	59,349	5.1
1971-72	1,178,580	62,787	5.3
1972-73	1,202,405	67,096	5.6
1973-74	1,212,101	68,234	5.6
1974-75	1,195,650	72,012	6.0
1975-76	1,189,160	77,016	6.5
1976-77	1,156,488	78,475	6.8
1977-78	1,116,810	77,174	6.9
1978-79	1,075,979	76,734	7.1
1979-80	1,034,221	78,445	7.6
1980-81	994,613	79,574	8.0
1981-82	994,976	78,994	8.4
1982-83	906,876	81,274	9.0
1983-84	876,935	81,732	9.3

Sources: Racial Census, 1967-68 to 1983-84
Individual School Reports, 1974 to 1979
Facts, 1976 to 1979

Table B-13

Five Year Difference in Major Categories of Non-White Student Enrollment, Prekindergarten through Post Secondary

	Asian	Black*	Hispanic
1978 - 79 Enrollment	8,059	61,422	30,679
1983 - 84 Enrollment	14,310	56,437	39,034
Difference	+6,251	-4,985	+8,355
Percent Change	+77.6	-8.12	+27.2

*Non-Hispanic

Source: Individual School Report

Table B-14

Most Common Language Groups Represented Among Massachusetts Student Body* Ranked by Frequency, 1982-83 and 1983-84

Rank	1982-83 Rank	1983-84 Rank
1	Spanish	Spanish
2	Portuguese	Portuguese
3	Chinese	Chinese
4	Greek	Greek
5	Italian	Italian
6	French	Vietnamese
7	Cape Verdean	French
8	Vietnamese	Cape Verdean
9	Khmer	Khmer
10	Lao	Lao
11	Korean	Korean
12	Russian	Arabic
13	Hebrew	Creole
14	Arabic	Russian
15	Creole	Japanese
16	Armenian	Hebrew
17	Hindi	Hindi
18	-----	Armenian

*Based on a sample of Massachusetts schools

Source: Individual School Report, 1982-83, 1983-84.

Table B-15

Number and Percent AFDC Students of Total Students Enrolled in School Years 1981-82 to 1983-84

	School Year		
	1981-82	1982-83	1983-84
Number of AFDC Students	112,858	98,623	95,444
Total Number of Students Enrolled	934,082	896,230	876,935
Percent of Total Students Enrolled	12.1	11.0	10.9

Source: Massachusetts Department of Public Welfare; Individual School Reports, 1981-82, 1982-83 and 1983-84 School Years, Massachusetts Department of Education.

Table B-16

Median Percent AFDC Children of Total School Attending Children (SAC) for 1984 by Kind of Community (KOC)

KOC	Description	Median Percent AFDC of SAC
1	Urbanized Centers	11.6
2	Economically Developed Suburbs	2.1
3	Growth Communities	4.1
4	Residential Suburbs	.9
5	Rural Economic Centers	5.8
6	Small Rural Communities	3.7
7	Resort/Retirement and Artistic Communities	5.4

Source: Department of Public Welfare, 1984

Table B-17

Private School as a Percent of Total School Attending Children (SAC) from 1968 to 1984

Year	Private School Children	Total Attending Children	Percent of Total
1968	249,670	1,323,595	18.9
1969	242,811	1,354,645	17.9
1970	230,689	1,376,200	16.8
1971	207,750	1,383,253	15.0
1972	190,704	1,384,129	13.8
1973	175,801	1,373,593	12.8
1974	156,203	1,363,188	11.5
1975	148,664	1,347,390	11.0
1976	140,675	1,324,471	10.6
1977	139,225	1,294,059	10.8
1978	137,335	1,253,688	11.1
1979	133,013	1,209,221	11.1
1980	129,884	1,159,343	11.2
1981	128,904	1,120,729	11.5
1982	132,820	1,074,219	12.4
1983	138,286	1,042,153	13.3
1984	134,192	1,008,444	13.3

Source: October Report

TRENDS

- Combined elementary and secondary enrollment peaked in the United States in the Fall of 1981 at 46,081,000 students. As of Fall,1982, this figure dropped to 39,401,474 students or a decrease of nearly 15%.

- United States elementary school enrollment reached its highest point in Fall of 1969 whereas the peak for secondary schools occurred in 1976.

- Between 1971 and 1981, the most severe losses occurred in the East and Midwest while some states in the South and West increased enrollment.

- During this ten year period, Massachusetts enrollment decreased 15.6% (183,678). Four other Eastern states decreased each in excess of 20%: New York, Pennsylvania, Connecticut and Rhode Island.

- Between 1982-83 and 1983-84, the combined decrease in enrollment of the seven N.E.R.E.X. states (-3.07) exceeded double that of the national average (-1.20) with the Massachusetts decline (-4.98) highest among the member states.

- Massachusetts enrollment will continue to decline through Fiscal 1989 however, the rate of decline will be smaller each year.

- National population projections anticipate slow growth in the 5-17 year-old-group in the next two to three years but do not expect that this population will return to the levels of the early seventies in the next fifty years.

- Despite a statewide decrease, a minority of Massachusetts communities have always shown and continue to show enrollment gains. These communities have tended to be smaller and located on the Cape or in the midwestern part of the state. By 1989 it is projected that 95 towns will gain a total of 98,817 students.

- Eight states gained a total of 102,000 students between Fall, 1981 and Fall 1982: Texas, California, Utah, Oklahoma, Arizona, Wyoming, Colorado and New Mexico.

- In October 1982, 89% of the nation's households with school age children had their children in public schools, 9% had them in private schools and 2% had children in both public and private schools.

- The characteristics of parents opting for private education as compared to those choosing public education are: relatively fewer children, higher education levels, more likely in white collar occupations and usually intact, two parent families.
- The majority of Massachusetts private schools continues to be Catholic. In 1980-81, 76% of Massachusetts private school enrollment was in Catholic schools.
- In October 1983, there were 2.3 million children enrolled in nursery schools nationwide, representing a 75% increase over the past ten years.
- While the Massachusetts school age population has been declining, the number of adults functioning below grade twelve level is increasing. Currently the number of adults requiring basic education services exceeds the school age population. As of Fiscal 1984, there are 1,068,106 persons who require basic education services.
- As the supply of immigrants in Massachusetts is increasing, so is the demand for English as a second language instruction.
- There is an increasing number of Hispanic and minority students in Massachusetts.
- There is an increasing number of diverse linguistic populations in Massachusetts especially in urban areas of the state.
- Kindergarten enrollment increased 1.4% from 1982 to 1984.
- First grade enrollment increased 1.8% from 1982 to 1984.
- The absolute number of non-white students in Massachusetts increased an average of 3.7% per year between 1968 and 1984. During the same period the percentage of non-white students increased an average of 5.1% per year. (4.4% to 9.3%)
- The fastest growing ethnic group enrollment in schools is Asian.
- Private school enrollment as a percentage of total school enrollment declined an average of 8% per year between 1968 and 1976. However, between 1977 and 1984, this percentage steadily increased an average of 3.5% per year.

SCHOOL FINANCE

Table C-1

School Finance Rankings

Characteristics	Mass. Rank	Mass. Value	U. S. Value
Per Capita Property Tax Revenue of Local Governments, 1981-82	9	$506.02	$340.36
Per Capita State Tax Revenue, 1981-82	12	837.31	720.02
State Tax Revenue in 1981-82 as a Percent of Personal Income in 1982	23	6.9	6.3
Public School Revenues Per Pupil in Average Daily Attendance, 1983-84	11	4,037	3,480
Estimated Percent of Revenue for Public Elementary and Secondary Schools from Local Government 1983-84	19	54.3	44.7
Estimated Percent of Revenue for Public Elementary and Secondary Schools From State Governments, 1983-84	34	40.0	48.7
Estimated Percent of Revenue for Public Elementary and Secondary Schools from the Federal Government, 1983-84	31	5.7	6.6
State and Local Government Expenditures for Local Public Schools as Percent of Total General Expenditures, 1981-82	39	23.2	24.5
Per Capita State and Local Expenditures for Local Schools (Including Capital Outlay) 1981-1982	29	456.12	468.34
Estimated Current Expenditures for Public Elementary and Secondary Schools per pupil in Average Daily Attendance, 1983-84 (Includes federal expenditures, operating costs of the State Department of Education, teacher pensions as well as state and and local operating costs).	9	$3,739.00	$3,173.00

Estimated Current Expenditures for Public Elementary and Secondary Schools in 1981-82 as Percent of Personal Income,1982	30	3.9	4.0
Percent Increase in Estimated Current Expenditures Per Pupil in Average Daily Attendance, 1973-74 to 1983-84	7	229.0	177.6

Source: NEA, *Rankings of the States,* 1984

Table C-2

Chapter 70 Facts, 1979 - 1985

	# DISTRICTS IN SAVE-HARMLESS/ 15% OF WEIGHTED COSTS	LOCAL SUPPORT % ("p")	REGULAR DAY PER PUPIL EXPENDITURE IN PREVIOUS YEAR	STATE AVERAGE EV/CAP	STATE SHARE OF CH. 70 EXPENDITURES (%) *	$ AMOUNT OF SAVE-HARMLESS/ 15% OF WEIGHTED COSTS	ANNUAL APPROPRIATION (M's)
1979	318/NA	.857366386	1,592	10,900	30.7	259.8/NA	633.5
1980	331/NA	.804395279	1,688	11,850	32.9	407.2/NA	716.5
1981	358/NA	.884174865	1,854	11,850	30.7	393.6/NA	716.5
1982	341/NA	.922480347	2,035	15,389	32.2	482.9/NA	716.1
1983	335/NA	.908412424	2,041	15,389	31.0	443.4/NA	716.1
1984	110/72	.751541886	2,211	21,906	35.5	117.8/38.5	865.6
1985	45/88	.672836037	2,397 (E)	21,906	39.0 (E)	38.7/46.9	977.0
1986	N/A	.679388519	2,570 (E)	26,119	N/A	.4/59.8	1028.0

*Does not include transportation, construction, teacher pensions or federal expenditures.

Source: Office of Executive Planning, 1985

Table C-3

Selected Statistics on Pupil Transportation Finance, 1979-80 to 1983-84

Statistic:	1979-80	1980-81	1981-82	1982-83	1983-84	Average Annual Rate of Change %	Percent Change 1979-80 to 1983-84
Total Amount Expended	112,434,396	124,037364	127,080,832	138,423,061	128,798,586	3.5	14.6
Total Per Pupil* Expenditure	144.	173.	197.	230.	221.	11.3	53.8
State Aid	51,238,234	51,247,074	72,191,664	74,039,916	79,122,319	11.5	54.4
State Aid * Per Pupil Transported	65.	71.	111.	122.	135.	20.0	107.69
Percent State Aid of Total Expended	46.0	41.0	57.0	57.0	61.0	7.3	32.6

*headcount

Source: Bureau of School Management Services, 1985

Table C-4

Revenues for Massachusetts Public Education

by Source for 1979-80 to 1982-83

Source:	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85 (est.)
Total Tax Levies	1,642,160,152	1,775,857,363	1,630,339,500	1,734,174,576	1,700,391,062	1,717,848,485
Percent of Total	57.9	59.2	57.08	58.56	55.18	52.62
Other Local Revenues	89,968,243	95,269,082	115,570,306	114,032,115	117,801,780	122,000,000
Percent of Total	3.18	3.18	4.05	3.85	3.82	3.74
State Aid	950,228,271	965,110,161	973,570,982	976,537,872	1,116,817,871	1,267,599,510
Percent of Total	33.53	32.19	34.09	32.97	36.24	38.83
Federal Aid	151,238,812	162,298,085	136,726,503	136,750,012	146,683,027	157,184,520
Percent of Total	5.3	5.41	4.79	4.62	4.76	4.81
Total School Revenues	2,833,594,478	2,998,534,691	2,856,207,291	2,961,494,575	3,081,693,740	3,264,632,515
Schools' Share of Total Municipal Revenues	49.04	47.31	46.06	45.65	NA	NA

Source: End of Year Report and Department of Revenue

Table-C-5

Proposed Funding for Federal Education Programs for Fiscal Year 1985 Compared with Actual Funding Levels - at the National and State Levels FY '81 - FY '84

Program	Actual Funding Levels FY'81	FY'82	FY'83	FY'84	Proposed FY'85
Chapter I					
National	3.10 B	3.03 B	3.21 B	3.48 B	3.45 B
% Change		-2.3	5.9	8.4	0
State Share	68.2 M	69.8 M	69.8 M	78.3 M	78.3M
% Change		2.3	0	12.0	0
Chapter II					
National	510.9 M	455.6 M	479.4 M	479.4 M	729 M
% Change		10.8	5.2	0	52
State Share	10.0 M	10.3 M	10.1 M	10.2 M	15.3 M
% Change		3.0	1.9	1	50
Handicapped					
National	1.0 B	1.0 B	1.2 B	1.2 B	1.2 B
% Change		0	20	0	0
State Share	31.8 M	33.1 M	27.4 B	27.8 M	27.6 B
% Change		4.1	-17.2	1.4	-.7
Bilingual .					
National	209.7 M	163.6 M	138.1 M	139.2 M	139.2 M
% Change		22.0	-15.6	.7	0
State Share	4.6 M	4.1 M	4.1 M	4.1 M	4.1 M
%Change		-10.9	0	0	0
Vocational					
National	681.6 M	655.8 M	728.7 M	738 M	738 M
% Change		3.7	11.1	1.2	0
State Share	16.6 M	15.4 M	15.3 M	17.0 M	17.0 M
% Change		7.2	-.6	11	0
Child Nutrition					
National	2.8 B	2.8 B	3.2 B	3.4 B	3.5 B
% Change	0	0	14	6.0	2.9
State Share	55 M	55.4 M	57.4 M	61 M	62.7 (es
% Change		.7	3.6	6.3	2.8
Adult					
National	100 M	86.4 M	95.0 M	100 M	100.0 M
% Change		-13.6	9.95	5.2	0
State Share	2.4 M	2.0 M	2.0 M	2.1 M	2.1 M
% Change		-16.6	0	5.0	0

Source: Proposed Federal Budget for Fiscal Year 1985.

Table C-6

Estimated Federal Revenue Receipts (in 000's) for Massachusetts, other NEREX States and United States, 1983-84 School Year

	Amount Federal Revenue Receipts (000's)	Percent of U.S. Total	Federal Aid as a Percent of all School District Revenue Receipts
Massachusetts	134,594	1.6	44.5
Connecticut	102,560	1.25	5.2
Maine	45,060	.55	7.8
New Hampshire	16,345	.20	3.7
Rhode Island	21,720	.26	4.6
Vermont	17,700	.22	5.7
New York	444,000	5.41	3.8
Total for NEREX Members	781,979	9.53	4.2
Total for United States	8,202,166	100.00	6.4

Source: NEA, 1984.

Table C- 7

Funding Levels for Selected Education Programs in the New England States and the U.S. for Fiscal 1984

New England States	Chapter I	Chapter II	Vocational Education
Connecticut	36,626	5,652	7,727
Maine	15,997	2,229	4,133
Massachusetts	87,061	10,198	16,617
New Hampshire	8,221	2,229	3,012
Rhode Island	12,135	2,229	3,073
Vermont	7,485	2,229	1,909
Total	167,525	24,766	36,771
U.S. Total[1]	3,304,568	438,706	702,105

[1] U.S. figures do not include funds for Puerto Rico or the Territories.

Source: Staff calculations from U.S. Department of Education Office of Planning, Budget and Evaluation, unpublished data.

Table C-8

Median Increase ($ Amount) in State Local Aid Per Capita Between Fiscal Years 1985 and 1986 by Kind of Community (KOC)

KOC	Description	Median Per Capita Local Aid Increase
1	Urbanized Centers	$32.00
2	Economically Developed Suburbs	13.49
3	Growth Communities	16.71
4	Residential Suburbs	5.75
5	Rural Economic Centers	23.09
6	Small Rural Communities	7.87
7	Resort/Retirement and Artistic Communities	5.02

Source: Governor's Budget Bureau

Table C-9

Massachusetts Expenditures for Major Education Programs, 1981-82 to 1983 -84

		Program Area		
Year:	Regular Day	Special Education	Bilingual Education	Occupational Education
1981 - 82				
General Fund	1,198,513,810	272,298,518	25,012,857	108,839,689
Special Fund	9,214,622	1,952,724	----------	-----------
Federal Fund	63,822,715	31,505,443	2,954,076	11,170,567
Total	**1,271,551,147**	**305,756,685**	**27,966,933**	**120,010,256**
1982 - 83				
General Fund	1,253,542,630	298,758,892	27,932,861	117,160,193
Special Fund	12,682,130	1,559,575	----------	------------
Federal Fund	65,290,036	32,214,178	2,713,498	9,951,949
Total	**1,331,514,796**	**332,532,645**	**30,646,359**	**127,112,142**
1983 - 84				
General Fund	1,304,547,030	309,956,501	30,646,102	122,080,120
Special Fund	14,705,058	1,458,209	----------	------------
Federal Fund	65,180,313	31,089,646	2,993,144	8,999,148
Total	**1,384,432,401**	**342,504,356**	**33,639,246**	**131,079,268**

Source: End of Year Report

Table C-10

Massachusetts Integrated Per Pupil Operating Cost, Fiscal Years 1972-1984

Fiscal Year	Average Per Pupil Cost*	Average Percent Increase
1972	964	--
1973	1,049	8.1
1974	1,152	9.8
1975	1,379	19.79
1976	1,493	8.3
1977	1,699	13.8
1978	1,821	7.2
1979	1,993	9.4
1980	2,200	10.4
1981	2,436	10.7
1982	2,44	20.2
1983	2,660	8.9
1984	2,866	7.7

*Includes: State and local operating costs only; does not include: capital costs, State Department of Education costs, teacher pensions and federal program costs.

Source: End of Year Report

TABLE C-11

FEDERAL/STATE AND LOCAL EXPENDITURES FOR EDUCATION IN THE NEW ENGLAND STATES AND THE U.S., 1982-1983

New England States	Federal			State and Local		
	Amount (in thousands)	Per Capita (in dollars)	Percent of Total Expenditure	Amount (in thousands)	Per Capita (in dollars)	Percent of Total Expenditure
Connecticut	89,756	28.47	4.9	1,721,462	547.02	95.1
Maine	55,920	49.36	10.1	496,927	438.59	89.9
Massachusetts	140,000	24.22	4.8	2,760,000	477.43	95.2
New Hampshire	16,000	16.82	3.9	390,120	410.22	96.1
Rhode Island	22,000	22.96	4.7	449,461	469.17	95.3
Vermont	19,412	37.62	7.0	259,000	501.94	93.0
Total or Average	343,088	29.91	5.0	6,080,270	474.06	95.0

Source: Proposed Federal Budget for Fiscal 1985.

Table C-12

Major Staff Cutbacks for the First Two Years of Proposition 2 1/2

	Number	Number	Two Year Cut	
Staff	1981-82	1982-83	Number	Percent
Instructional Support	2,116	448	2,564	22.9
Administration	621	184	805	16.3
Reading	489	151	640	29.0
Geography/History Social Studies	489	90	579	14.8
English	465	26	491	10.1
Guidance/Counseling	393	83	476	21.3
Art	360	75	435	24.8
Speech	10	80	90	52.6

Source: October 1, School System Summary Reports, 1982, 1983

TRENDS

- Staff cuts during the first two years of Proposition 2 1/2(-15.24%) were not fully explained by the decline in enrollment (-8.94%) for the same period.

- There was no significant trend toward non public education attendance in the aftermath of the first two years of Proposition 2 1/2.

- During Fiscal Years 1983 and 1984, 93 Massachusetts communities voted on whether to raise property taxes above the limits imposed by Proposition 2 1/2. Within these 93 communities, 113 votes were sought, of which 64 favored either excluding debt from the limit or raising the limit.

- Despite Proposition 2 1/2, Massachusetts local governments continue to rely heavily on property tax especially for the support of public education.

- Massachusetts and its member states within N.E.R.E.X., with the exception of Maine, receive less state revenue for education than the nation as a whole.

- The impact of Chapter 2 on the local education agencies varied, however, the majority of districts found they received more funding as a result of the block grant approach.

- Districts which, in the past were most successful in obtaining the competitive categorical grants found they received fewer Federal dollars under the consolidation.

- It is expected that school districts will continue to use Chapter 2 money primarily for educational technology.

- In the Federal Fiscal 1985 budget, there has been a decline in support for the administration of nutrition programs.

- It is expected that Federal subsidies for the School and Child Care meals will be frozen at the 1984 level and eliminated entirely for children who pay for lunch.

- The expected decrease in Federal support effective September 1985 will adversely affect the operation of all School and Child Care Nutrition Programs, unless State funding is increased.

- Federal allocations to Massachusetts for handicapped, bilingual, occupational and adult education are decreasing as are funds for child nutrition programs.

- In 1983-84 Federal aid represented 4.5% of all Massachusetts school district revenue receipts. The total percentage for N.E.R.E.X. member states is 4.2%. Both of these figures are considerably lower than the national average of 6.4%.

- Between Fiscal Year 1984 and Fiscal Year 1985, federal funds as a percentage of the total state education budget have declined approximately 6% -- from 15.1% to 14.2%.
- Although some minor progress in equalization among Massachusetts school districts has occurred between 1970 and 1982, the net result is that there has been very little change in per pupil expenditure disparities.

EDUCATIONAL PERSONNEL

Working Conditions of Teachers

For the last decade teachers in the public schools of the Commonwealth have witnessed and experienced worsening working conditions. Initially, declining enrollments made what were once secure and stable positions, ones that were subject to elimination. Hundreds of young elementary teachers lost their jobs across the state and many others received notice letters and sometimes had to wait until late August to find out whether they were working or not. In some communities these conditions often resulted in a teacher working in five different schools and five different grades in a five year span. In others, many teachers were required to teach subjects in which they had little preparation or recent training.

In 1980 when proposition 2 1/2 became a fact of life, hundreds more teachers lost their jobs. Those left in the schools, tended to be older and were experiencing larger class sizes, loss of professional days and in-service opportunities, and deteriorating building conditions. (See Table C-12)

Many school districts eliminated curriculum positions such as subject-matter specialists, department heads and district-wide program directors. The result--little leadership to provide teachers with assistance in improving curriculum and their delivery of it. In addition, shortages of textbooks and instructional materials made it difficult for teachers to teach.

Cost saving strategies in other areas also affected the working conditions of teachers. Fewer custodians meant less clean buildings; reduced maintenance budgets meant leaking roofs; limited energy dollars meant cold classrooms.

Many school districts have also not been able to increase teacher salaries. This has resulted in real financial loss for teachers and their families and in adversarial situations between teachers and school committees and administrators.

Any efforts to improve education must include efforts to improve the working conditions of teachers. The most important relationship in a school is between the teacher and the child. Whatever stands in the way of making that relationship produce excellence in learning and teaching must be eliminated.

Table D-1

Educational Personnel Rankings

Characteristic	Mass. Rank	Mass. Value	U. S. Value
Total Instructional Staff (in full time equivalents) in Local Public Schools, October 1982	11	73,619	2,751,572
Total Non Instructional Staff (In full-time equivalents) in Local Public Schools, October 1982	16	24,546	1,216,976
Percent Public School Teachers Who Are Men, 1983-84	3	42.06	31.65
Estimated Average Salaries of Public School Teachers, 1983-84	15	23,000	22,029
Percent Increase in Average Salaries of Public School Teachers, 1973-74 to 1983-84.	28	106.69	104.39
Percent Increase in Instructional Staff Salaries, 1981-82 to 1982-83	43	4.6	7.5
Public School Teachers Salaries, 1982	12	19,900	19,000
Classroom Teachers Per 100 School District Employees 1981-82	7	60.3	N/A
School Officials/Administrators Per 100 School District Employees, 1981-82	40	3.6	N/A

Sources: NEA, Rankings of the States, 1984
NCES, Statistical Compendium, 1981-82

Table D-2

Total Massachusetts Professional Instructional Staff for Regular Day, Special, Bilingual / ESL and Occupational Education in Full-Time Equivalents for 1981-82, 1982-83, 1983-84 School Years

	1981-82	1982-83	1983-84	Percent Change 1981-82 to 1983-84
Regular	54,632.8	52,974.3	52,557.3	-3.8
Special	8,594.8	8,820.1	8,994.3	4.6
Bilingual/ESL	1,274.0	1,286.2	1,238.1	-2.8
Occupational	2,713.9	2,686.2	2,827.4	4.2
Total	67,215.5	65,766.8	65,617.1	-2.4

Source: School System Summary Reports, 1982, 1983.

Table D-3

Massachusetts Regular Education Instructional Staff Totals by Selected Subject Area Assignments for 1981-82, 1982-83, 1983-84 School Years in Full-Time Equivalents

Subject Area:	1981-82	1982-83	1983-84	Percent Change 1981-82 to 1983-84
English	4426.6	4400.3	4316.3	-2.5
French	718.6	703.0	697.9	-2.9
Spanish	740.7	710.7	732.7	-1.1
Other Modern Language	176.0	158.8	167.4	-4.9
Greek/Latin/Classics	183.4	193.0	192.4	4.9
Geography	147.5	150.2	137.1	-7.1
History	753.2	856.6	858.4	14.0
Social Studies	2539.4	2343.9	2317.0	-8.8
Biology	784.8	771.8	767.1	-17.7
Chemistry	428.6	450.4	439.0	10.4
Earth/General Science	1964.2	1855.3	1885.2	-4.0
Math/Math + Science	3756.5	3711.6	3797.9	1.1
Physics	236.8	246.9	250.7	5.9
Behavorial Science	49.3	56.3	11.4	-76.9
Art,Dance,Music,Drama	2961.0	2861.1	2886.9	-2.5
Reading	1717.1	151.2	1924.2	12.1
Speech	162.4	80.2	87.1	-46.4
Total	21,746.1	19,701.3	21,468.7	-1.3

Source: School System Summary Reports

Table D-4

Equal Employment Indicators for Massachusetts Educational Personnel, 1980

	Total Number	% Female	% Minority	% Minority Female
Prekindergarten/ Kindergarten Teachers	5,572	94.8	8.4	7.7
Elementary School Teachers	66,211	71.5	4.3	3.3
Secondary School Teachers	30,078	53.3	3.0	1.8
Special Education Teachers	956	80.2	4.3	4.3
Teachers not elsewhere classified	11,539	60.1	5.4	2.9
Educational/Vocational Counselors	7,338	53.2	9.8	6.2

Source: 1980 Census

Table D-5

Most Frequent Fields in Which Certifications Were Issued During the Two-Year Period, Fiscal Year 1983 and 1984

Field	Two Year Total of Certificates	Rank
01 - Elementary (K-8)	2,514	1
53 - Children With Moderate Special Needs (5-12/N-9)	1,081	2
04 - Elementary (1-6)	945	3
82 - Elementary Principal	871	4
83 - Secondary Principal	752	5
14 - Social Studies (K-3/1-6/5-9/9-12)	723	6
81 - Supervisor/Director	722	7
11 - English (K-3/1-6/5-9/9-12)	658	8
03 - Early Childhood (K-3)	549	9
19 - General Science (K-3/1-6/5-9/9-12)	438	10
41 - Physical Education/Health	431	11
15 - Math (K-3/1-7/5-9/9-12)	352	12
Total	10,036	

Elementary K-8 certification no longer available

Elementary and Secondary Principal Certificate now included in new #79 Principal Certificate.

Physical Education/Health Certificate now issued under either #40 Physical Education or #42 Health Certificate

Source: Bureau of Teacher Preparation, Certification and Placement

Table D-6

Selected Characteristics of Public School Teachers in United States, Spring 1961 to 1981

Characteristics	Year		
	1961	1971	1981
Median Age (Years)	41	35	37
Race (Percent)			
Black	NA	8.1	7.8
White	NA	88.3	91.6
Other	NA	3.6	0.7
Female (Percent)	68.7	65.7	66.9
Highest Degree (Percent)			
Less than Bachelor's	14.6	2.9	0.4
Bachelor's	61.9	69.6	50.1
Master's or 6 Years	23.1	27.1	49.3
Doctor's	0.4	0.4	0.3
Years Teaching (Median)	11	8	12
Annual Salary (Average)	5,264	9,261	17,209

Source: NEA, Status of the American Public School Teacher, 1980-81

Table D-7

Total Average Teacher Salaries for Regular Day, Special Needs, Bilingual and Occupational Day, 1982, 1983 and 1984 in Massachusetts

	1982	1983	1984	Percent Change 1982-1984
Regular Day	20,546	22,100	23,265	13.2
Special Needs	18,568	20,307	20,802	12.0
Bilingual	17,119	19,244	19,157	11.9
Occupational Day	20,235	22,029	24,514	21.1
Total	20,249	22,841	22,964	13.4

Source: End of Year Report

Table D-8

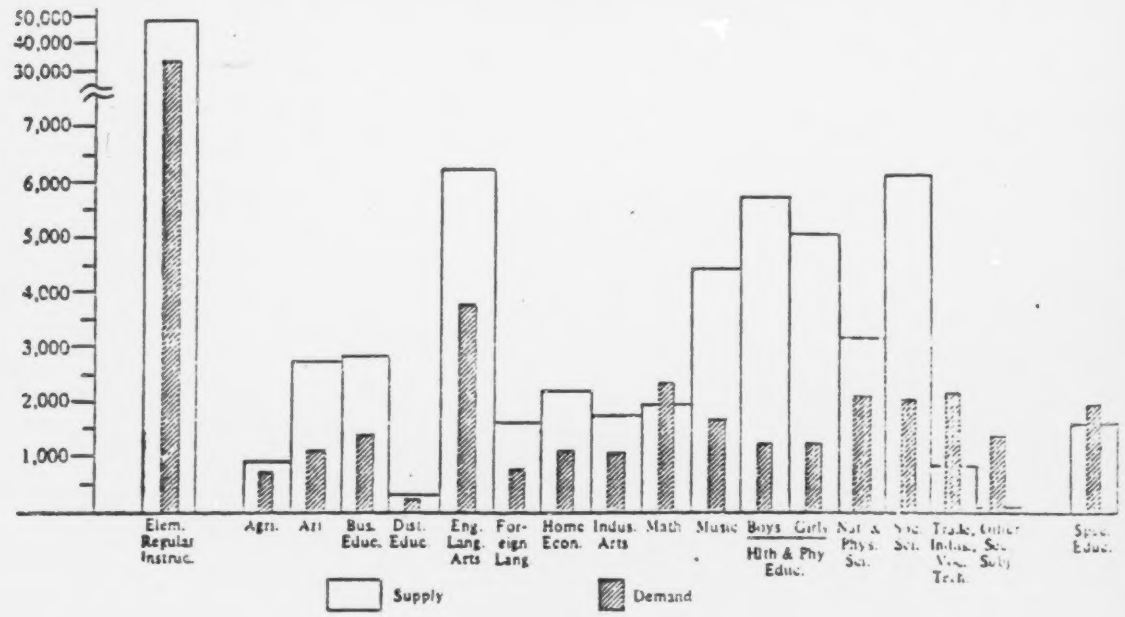
Amount and Percent Change in Annual Adjusted Average Teacher Salary* for United States, Massachusetts and Selected States 1969-70 to 1979-80

	1969-1970	1979-1980	Percent Change 1969-70 to 1979-80
United States	22,028	20,336	-7.7
Massachusetts	22,863	27,279	19.3
California	24,869	22,582	-9.1
Connecticut	23,424	20,686	-11.7
New York	25,418	24,733	-2.7
New Jersey	23,673	22,855	-3.5
Ohio	21,416	19,520	-8.9
Pennsylvania	22,427	20,683	-7.8
Michigan	25,231	23,371	-7.3
Minnesota	24,812	20,191	-18.6
Rhode Island	22,176	22,338	0.7
Wisconsin	22,801	19,804	-13.1

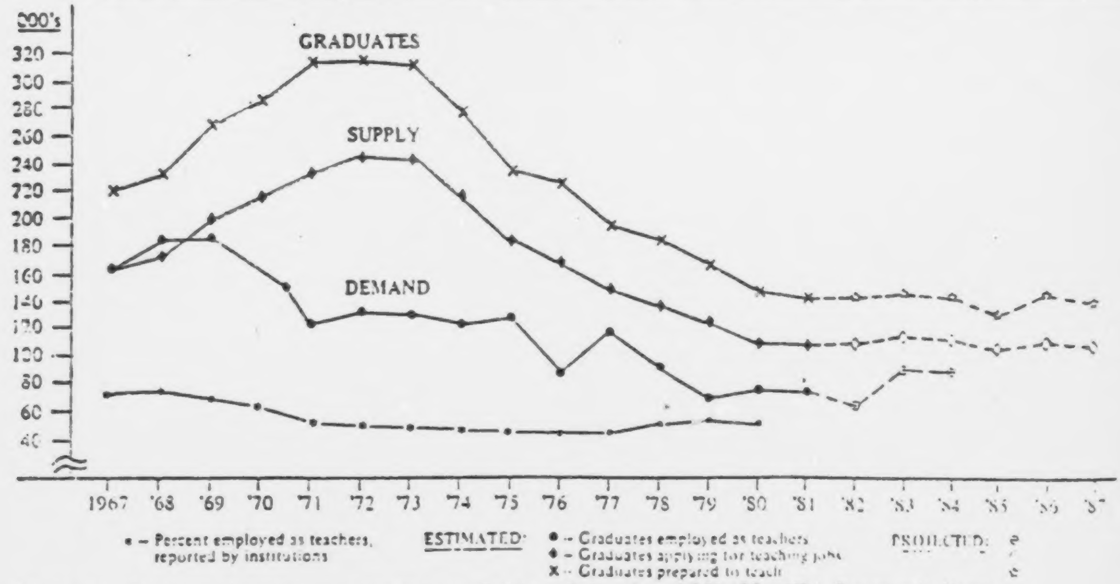
*Adjusted for 1981-82 purchasing power

Source: Digest of Education Statistics, 1983-84, NCES

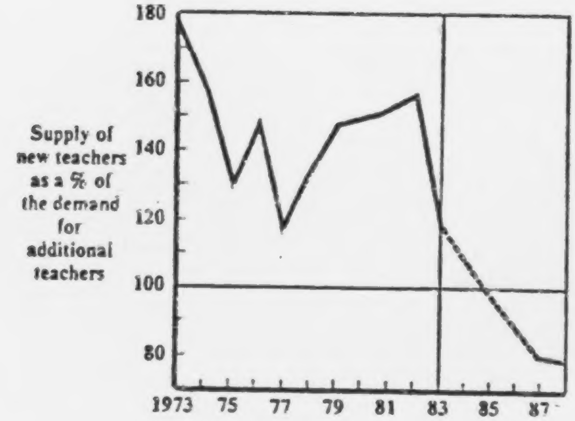
SUPPLY COMPARED TO DEMAND FOR BEGINNING TEACHERS, FALL 1981, BY TEACHING ASSIGNMENT



SUPPLY AND DEMAND FOR BEGINNING TEACHERS AND PERCENT OF TEACHER EDUCATION GRADUATES EMPLOYED AS TEACHERS, FALL 1967 TO FALL 1981 AND PROJECTED TO FALL 1987.

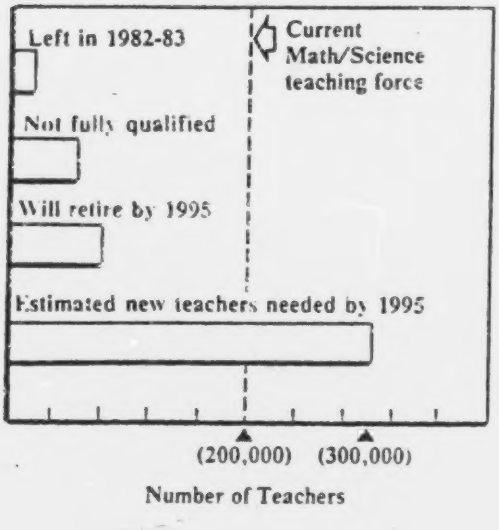


Source: Teacher Supply and Demand in Public Schools, 1981-82, NEA Research Memo



A General Shortage of Teachers Is Imminent

United States



Status of the Mathematics and Science Teaching Force

United States

Source: Beyond the Commission Reports, Rand

Table D-9

Percentage of Bachelor Degrees in Education Awarded for the Years 1981 - 1983

Type of Institution	1981	Year 1982	1983
Public			
Male	2%	1%	2%
Female	5%	5%	7%
Total	**7%**	**6%**	**9%**
Independent			
Male	1%	1%	NA
Female	5%	4%	NA
Total	**6%**	**5%**	**NA**
Total Public and Independent	**13%**	**11%**	**NA**

Source: HEGIS Reports, 1981, 1982 and Massachusetts Board of Regents

Table D 10

Number of Bachelor Degrees in Education Awarded for the Years 1981-1984

Type of Institution	1981	1982	1983	1984
Public				
Male	463	372	268	NA
Female	1,383	1,237	889	NA
Total	1,846	1,609	1,157	1,000
Independent				
Male	263	219	NA	NA
Female	1,174	1,105	NA	NA
Total	1,437	1,324	NA	NA
Public and Independent Total	3,283	2,933		

Source: HEGIS Reports, 1981, 1982 and Massachusetts Board of Regents

Table D-11

Ranking of Degrees Awarded by Type of Degree, Area of Study and Type of Institution in Massachusetts, 1980-81, 1981-82

	1980-1981		1981-1982	
Rank	Public	Independent	Public	Independent
		Bachelor		
1	Business	Business	Business	Business
2	Social Sci.	Social Sci.	Social Sci.	Social Sci.
3	Education	Engineering	Education	Engineering
4	Engineering	Health	Engineering	Health
5	Health Prof.	Letters	Health	Letters
		Master's		
1	Education	Business	Education	Business
2	Engineering	Education	Business	Education
3	Business	Public Affairs	Engineering	Public Affairs
4	Psychology	Engineering	Psychology	Engineering
5	Letters	Health	Social Sci.	Health
		Doctorate		
1	Education	Education	Education	Education
2	Psychology	Physical Sci.	Social Sci.	Social Sci.
3	Biologic Sci.	Social Sci.	Physical Sci.	Physical Sci.
4	Physical Sci.	Engineering	Biologic Sci.	Engineering
5	Social Sci./ Letters	Psychology	Engineering	Biologic Sci.

Source: HEGIS REPORT, 1981, 1982

TABLE D-12

Racial/Ethnic Breakdown of Bachelor Degree in Education Recipients by Type of Institution in Massachusetts for 1981 and 1983*

	Public		Independent	
	1981	1983	1981	1983
Non-Resident Alien	4	2	19	NA
Black Non-Hispanic	31	8	74	NA
Amer. Indian or Alaskan Native	3	4	0	NA
Asian or Pacific Islander	8	3	13	NA
Hispanic	16	6	16	NA
White Non-Hispanic	1,784	1,029	1,244	NA
Other	0	105	71	NA
Total	**1,846**	**1,157**	**1,437**	NA

*Racial Breakdown by degree not available for 1982

Source: Massachusetts Board of Regents and
HEGIS Report, 1981

TRENDS

- Nationally the number of graduates completing preparation to enter public school teaching in 1981 (140,639) was smaller by 2.3 percent than the number reported for 1980. This was the ninth consecutive year that the number of graduates prepared to enter teaching decreased since the high point of 317,254 in 1972.
- The 1981 supply of 206,750 qualified teacher applicants was more than adequate for the 109,550 jobs to be filled. The 108,900 new applicants from the 1981 graduating class exceeded the number of jobs open to them (76,550) by 32,400.
- Low supply compared to demand continues to occur in mathematics and special education. Other areas in which supplies are low are in the natural and physical sciences, industrial arts, vocational technical assignments and agriculture.
- The 47,250 new graduates of 1981 seeking to enter elementary school teaching far outnumbered the 33,050 jobs open to them. This surplus may begin to decrease in 1985 as the number of teaching jobs in the primary grades increase.
- The supply of 206,750 qualified teacher applicants in Fall 1981 was not large enough to fill the minimum of 536,400 positions that estimates indicate would have to be filled to immediately raise the quality of school programs and services to minimum levels.
- The current highly educated and experienced teaching force is dwindling as older teachers retire in increasing numbers and many young teachers leave for other occupations. The factors discouraging qualified people from entering and remaining in teaching are occurring at a time when the demand for teachers is increasing. Consequently, it will be necessary to hire and retain large numbers of marginally qualified people unless major changes are made in the profession.
- New recruits to teaching are less academically qualified as measured by SAT and NTE scores than those who are leaving.
- College students majoring in education have lower scores on the Graduate Record Examination than do Liberal Arts majors.

o The average age of public school teachers is increasing.

o Across the country beginning salaries for public school teachers are not competitive with salaries offered to comparably prepared bachelor degree graduates by private industry. Between 1975 and 1981 salaries for teachers with a bachelor's degree increased by 45.6% while beginning salaries for new graduates with a bachelor's degree increased by 69.0% in the highest salary subject field and by 59.3% in the lowest salary field.

o More than one-third (36%) of public school teachers in 1980-81 indicated they "probably" or "certainly would not" become teachers again if they could go back to college and start over. In three five-year surveys prior to 1975-76, no more than one in eight teachers (less than 12.6%) expressed this dissatisfaction.

o The accountability schemes of the 1970s (for example, management by objectives, competency-based education, and minimum competency testing) controlled teaching behavior more than they upgraded teaching and their professional decision-making abilities. These schemes viewed teachers as agents subject to hierarchical controls rather than as autonomous decision-makers, thus increasing their dissatisfaction.

o A Rand survey of teachers indicated that 45% would resign if the prescriptiveness of teaching content and methods increased.

o If teaching salaries and working conditions are improved:

  Shortages in most assignment areas will be reduced immediately as a result of the application for teaching employment by large numbers of graduates prepared for these fields.

  Increased numbers will prepare for assignment areas needing additional applicants, and this will gradually eliminate most shortages.

  Larger numbers of the most able graduates prepared to teach will seek teaching employment, and this will gradually improve the quality of schools.

o Accomplishing school improvements in 1981-82 would require creating an estimated 426,850 teaching vacancies:

  4300 new teachers to replace those with substandard qualifications;

  252,900 new teachers to reduce maximum class size to 25 students; 57,250 new teachers to expand special education services to all students needing them;

51,600 new teachers to replace or reassign teachers who are teaching outside of their field of preparation; and

50,000 new teachers to expand or reinstate fine and practical arts programs or courses

- If teaching employment becomes less attractive:

  -shortages will intensify in assignments presently least well supplied.

  -additional assignment areas will face shortages of qualified applicants.

  -Shortages will continue in the assignments presently least well supplied.

  -Numbers preparing for the enlarged numbers of elementary and special education assignments probably will be adequate as a result of improved employment outlook.

- Shortages of qualified teachers in subject areas such as mathematics and science are expected to grow over the next few years into a more generalized teacher shortage as enrollments increase and the supply of prospective teachers continues to shrink.

- In the mid 1980s the demand for new elementary school teachers should rise because of the increasing number of young children expected to enter school. For several years thereafter, the number of elementary school teachers can be expected to increase. Although the demand for secondary school teachers is expected to decline, demand may exceed the supply for mathematics and science teachers.

- The number of public school teachers with a Master's degree increased from 23.1% to 49.3% between 1961 and 1981.

- Massachusetts public higher education institutions awarded fewer Bachelor's degrees in Education in 1983 (1,152) than in 1981 (1,846).

- Independent higher education institutions in Massachusetts awarded fewer Bachelor's degrees in Education in 1982 (1,324) than in 1981 (1,437).

INSTRUCTION

Educational Philosophies in the Commonwealth's Public Schools

No single educational philosophy characterizes teaching and learning in the Commonwealth's public schools. In many districts the "back to basics" movement begun in the 1970s made the traditional approach to curriculum and instruction legitimate, if not preferable to other approaches. The traditional approach emphasizes the academic 3 R's and gives short shrift to such "frills", as electives in English and social studies, film study, humanities and personal development courses.

The application of Effective Schools Research is the guiding ethic in other school districts. Based on research conducted primarily in elementary schools, this approach stresses planning and implementing change at the individual school level. In these schools, the principal as instructional leader coordinates and motivates staff to focus on student achievement through a clear sense of mission and high expectations for all.

"Excellence" has become a shibboleth for many school districts and has been used to justify increasing academic requirements and raising standards. Unfortunately these changes are seldom accompanied by any analysis of pedagogy or learning styles.

Still other districts have been investigating such popular prescriptions as "mastery learning", "time on task", "engaged time", and "direct instruction." These methods represent a movement away from the child-centered approach to an emphasis on teacher effectiveness.

The classic humanities curriculum and an emphasis on a liberal education for all students through a clearly outlined core curriculum are experiencing a resurgence. Whether the core content provides sufficient preparation in the natural and social sciences is arguable.

The prevailing philosophy of a school district is very much related to both its human and fiscal resources. The better trained the staff, the more the district will incoporate new research findings into its planning and instruction. Districts with limited resources are forced to rely on textbooks and a traditional, possibly outdated, curriculum. In order to educate students effectively school districts must have the capacity for periodic renewal and change in light of current needs and knowledge.

Table E-1

Instruction - Rankings

Characteristic	Mass. Rank	Mass. Value	U.S. Value
Pupils Enrolled Per Teacher in Public Elementary and Secondary Schools, Fall 1983	47	15.46	18.45
Pupils in Average Daily Attendance Per Teacher in Public Elementary and Secondary Schools, Fall 1983	47	14.01	17.08
Pupils in Average Daily Membership Per teacher in Public Elementary and Secondary Schools, Fall 1983	39	15.45	18.07

Source: NEA Rankings, 1984

Table E-2

Special Education Program Distribution in Massachusetts for 1983-84

Program Prototype	Description	Percent Distribution
502.1	100% regular day classroom	8.2
502.2	Regular day classroom with up to 25% time out	53.7
502.3	Regular·day classroom with up to 60% time out	13.9
502.4	100% special education classroom in public school	17.8
502.5	Private day school	2.9
502.6	Private residential treatment program	.6
502.7	Special education in a hospital setting and/ or at home	.7
502.8	Programs for children ages three to four	2.3
	Total	100.0

Source: School System Summary Report

Table E-3

Number and Percent of Schools Reporting Non Special Education Prekindergarten Programs

Do you have a prekindergarten program for other than special needs children?	Public Schools	Private Schools	Public and Private Schools
Yes	219* (18%)	188** (41%)	407 (24%)
No	1020 (82%)	274 (59%)	1294 (76%)
Total	1239	462	1701
Responding	(68%)	(56%)	(64%)

* Reflects 244 programs
** Reflects 192 programs

Source: October 1, Report, 1984

Table E-4

Total Numbers of Counseling Staff in Massachusetts, 1980-81 to 1983-84

	80-81	81-82	82-83	83-84
Guidance Counselors	2237	1844	1761	1703
Adjustment Counselors	481	444	463	475
School Psychologists	667	618	610	622
Vocational Counselors	162	153	146	132
Guidance Directors	166	143	127	116
Student/Counselor Ratios	1:353	1:389	1:384	1:381

Source: Preliminary Study of Guidance and Counseling in Massachusetts, 1984

Table E-5

Counselors per 1,000 Pupils in Local Education Agencies for Nation and Selected States by Instructional Level, Fall 1979

State	Elementary	Secondary
United States	0.49	3.57
California	0.27	3.92
Connecticut	1.06	4.64
Maine	0.40	2.54
Massachusetts	0.83	5.66
New Hampshire	0.94	2.70
New Jersey	0.52	4.09
New York	0.39	3.05
Ohio	0.46	3.87
Pennsylvania	0.52	3.43
Rhode Island	0.98	4.94
Vermont	0.43	6.80

Source: NCES, 1982

Table E-6

Average Years of Instruction Required in Massachusetts High Schools (9-12), 1983

	Average Number of Years
English	3.98
Math	1.70
Social Studies	2.20
Science	1.50
Total	9.40

Source: October 1, Report, 1983

Table E-7

Percent of Vocational High Schools with Graduation Requirements in Core Academic Subjects

		Number of Years Required				
Subject:	0	1 -1+	2-2+	3-3+	4	Average Years Required
English	---	---	---	---	100.0	4.0
Math	---	3.2	16.1	29.0	51.6	51.0
Social Studies	---	12.9	25.8	22.6	38.7	2.9
Science	3.2	12.9	35.5	19.3	29.0	2.6

Source: October 1, Report, 1983

Table E-8

Percent of 1982 High School Graduates in the United States Who Took Three or More Years of Math and/or Science

	Math 3+ Years	Science 3+ Years
All Students	46.2	30.4
Students in Academic Programs	73.4	54.4
Students in General Programs	32.1	19.2
Students in Vocational Programs	23.2	8.9

Source: NIE, 1984

TABLE E-9

TYPE AND NUMBER OF SCHOOL CHANGES IN UNITED STATES

BY CURRENT LEVEL OF ENROLLMENT FROM OCTOBER 1982 TO OCTOBER 1983

Type of school	All students	All students changing	Type of change			Number of Shifts		
			During year only	During and between year	Between year only	One	More than one	No response
Total	43,374	10,594	1,508	2,545	6,540	7,881	2,675	38
Elementary	26,140	6,743	925	1,769	4,049	4,887	1,821	35
High school	13,395	3,605	336	777	2,492	2,782	820	3
Other[1]	3,839	246	246	0	0	212	34	0

[1] Includes college students, high school graduates, and dropouts who were enrolled in elementary or high school during the reference period.

Source: Bureau of the Census, 1984.

TABLE E-10

MEDIAN HOURS OF HOMEWORK PER WEEK

IN UNITED STATES, OCTOBER 1983

Type of School	All students	White	Black	Hispanic	Male	Female	Proportion getting help
All schools	5.4	5.4	5.6	5.3	5.2	5.7	57.9
Elementary	5.0	4.7	5.4	5.0	4.6	5.2	72.1
Public	4.9	4.5	5.4	4.9	4.5	5.1	71.9
Private	5.5	5.4	6.0	5.7	5.3	5.8	73.2
High school	6.9	6.8	6.8	6.1	5.9	8.3	33.1
Public	6.5	6.4	6.6	5.9	5.8	8.0	32.8
Private		14.2	14.4	14.5	14.1	14.4	35.5
Total public	5.4	5.3	5.6	5.2	5.2	5.6	57.4
Total private	6.2	6.0	8.0	6.8	5.8	7.2	61.8

Source: Bureau of the Census, 1984

TRENDS

- It is expected that there will be more females and more minorities enrolled in occupational education programs. This will require more individualization of instruction by instructors and the need for instructors to develop curriculum - a new role for the occupational education instructor.

- It is expected that fewer students will be enrolled in occupational programs necessitating more aggressive recruitment and marketing by school districts.

- Industrial arts programs will become more technical in order to adapt to the increasing technological sophistication of the work place and society as a whole.

- Unlike the 1970s, today the Federal government is not assuming a leadership role or developing a set of policies on gifted and talented education except in relation to the concept of excellence in education. Rather, national leadership has more recently been taken by parent and professional organizations, coalitions and consortiums, advocacy groups and councils.

- Massachusetts ranks second in the nation with its 2,206 industry-education partnerships. Educators, business people, and community leaders are increasingly recognizing that partnerships allow broader community involvement in the educational decision making and programming in their cities and towns. The largest number of industry-education partnerships produce career awareness programs.

- Although nation-wide we have seen the annual doubling of computers available for instruction in schools, we will see a leveling-off of this growth rate in the five years ahead.

- One of the major educational technology issues facing school districts today is the proper training of teachers committed to the curricular integration of technology. Training efforts will also need to focus on overcoming resistance on the part of teachers fearful of (or hostile to) change. Thus, increasing policy emphasis will be placed on support for training and staff development, and decreasing emphasis on hardware acquisition.

- We should see more public involvement in software development (production consortia) and collective licensing. Additionally, we can expect greater emphasis on delivering timely review information to school districts on the relative quality of alternative software choices. Increasingly, this kind of information will be available in electronic "on-line" form for school districts to access directly on site. Due to the cost of such service, we should see increased state level involvement in purchasing such service for all school districts within respective jurisdictions.

- We will see the merging of image-based (e.g. video, television) and data-based technologies in the production of new materials. The availability of user interactive videodisc materials will increase substantially in the next 5 years.

- We expect an increasing use of district-based electronic networking of software applications. This will increase the capacity of districts to control the circulation and use of software, and will create savings in software and hardware costs. However, for many reasons, we doubt that the heavily-centralized, relatively expensive, single vendor minicomputer-based hardware systems currently being promoted under such names as WICAT will catch on. Commitment to such systems closes down other subsequent options, reduces teacher decision-making over software selection and application, and puts consumers at the mercy of vendors whose own futures are not well assured.

- We anticipate continued hardware price reductions in the form of increased computing power for level prices. This will have beneficial consequences for the development of increasingly complex and sophisticated (but easier-to-use) instructional software.

- As familiarity with computers becomes ever more needed for effective societal and vocational functioning, there will be increasing pressure for appropriate teacher certification requirements. This phenomenon should especially manifest itself in pre-service certification requirements for all elementary and secondary teahers, but may also generate new requirements for the existing teaching pool.

- State and federal mandates now require that public schools educate many children who ten to fifteen years ago did not have access to a free public education. This has increased the expectation that schools will provide comprehensive guidance services, including psychological and human services for all students in consultation with parents.

- Many, mostly suburban districts are providing adequate guidance counseling services, while others, mostly rural and urban, are severely lacking even basic services. The Board of Education has recommended that a 250 300 to 1 student/counselor ratio is needed to maintain adequate service delivery.

- In poorer urban school districts where higher student/counselor ratios tend to occur there are usually few elementary school counselors or preventive services. Vocational and career guidance is limited and personal counseling is usually restricted only to crisis intervention.

- Without access to preventive services at the elementary level, more students with social and psychological problems are showing up in in secondary schools. There were approximately 66,900 counselor assignments in the Nation's public schools during Fall 1979, an increase of almost one-third from Spring, 1970. Less than one-fourth (20.5%) of these assignments were in the elementary schools; 73% were assigned to secondary schools; the remainder (6.6%) were unclassified assignments.

- The ratio of counselors per 1,000 pupils varies greatly from state-to-state. Massachusetts had more counselors per 1000 pupils than the national average in Fall 1979.

- In the post Sputnik era some university professors and professional curriculum developers began producing so called "teacher-proof" curricula. Generally speaking this effort failed because it prevented teachers from making personal decisions in the classroom.

- In spite of local autonomy and minimal state control, there is a definite similarity among secondary school curricula in Massachusetts, at least for college bound students. The 66% of Massachusetts seniors who took the College Board aptitude tests last year took, on the average:

  4 Years of English;
  3 1/2 years of Mathematics;
  3 Years of Social Studies;
  2 Years of Physical Science, and
  1 1/2 years of Biologic Science.

- A majority of Massachusetts local school districts tend to use the same textbooks.

- 100% of Massachusetts vocational high schools require 4 years of English.

  96.7% require at least two years of math
  80.6% require at least three years of math.

  87.1% require at least two years of social studies
  61.3% require at least three years of social studies

  83.8% require at least two years of science.
  48.3% require at least three years of science.

- 97.2% of Massachusetts 9-12 high schools require more than 3 years of English. By 1987, 100% will require 4 or more years of English.

- 71.2% of Massachusetts 9-12 high schools require at least 2 years of math. By 1987, 84.4% will require at least 2 years of math.

- 86.3% of Massachusetts 9-12 high schools require at least 2 years of social studies.More than ninety-two percent (92.4%) will require at least 2 years of social studies by 1987.

- 57.1% of Massachusetts 9-12 high schools require at least 2 years of science. By 1987, 71.3% will require at least 2 years of science.

- No high school in Massachusetts requires coursework in foreign language for the Class of 1984; 3 schools have introduced a foreign language requirement for the Class of 1987.

- Of all the courses required for high school graduation in Massachusetts 9-12 high schools, an average of 9.4 years are specified in the four core academic areas.

- 25.6% of Massachusetts high schools have initiated changes in requirements for the class of 1987.

- Most secondary schools in the Commonwealth currently offer come type of formal work experience program. About 88% of a representative sample of all high schools in the state offer one or more types of work experience (Vocational, General, Exploratory or Other); over half of these schools offer two or more types of experience.

- Of the 12% of Massachusetts schools sampled which offered no work experience program, most (80%) had offered one in the past. Lack of funds or lack of job sites were reasons cited most often for discontinuing programs.

- Academic schools (59%) are more likely than vocational schools (29%) to offer a greater variety of work experience programs. But academic schools (13%) are more likely to offer no work experience program as compared to vocational schools (5%).

- Information on the class of 1980 for the nation indicate that 39% of seniors pursued an academic program, 24% a vocational technical program and 37% a general program (neither primarily academic or vocational in its orientation).

- Ninety-six percent of the seniors in the class of 1980 across the nation reported they had completed two years or more of English or literature courses in grades 10-12. Eighty-one percent had completed two years or more of history or social studies. Sixty-six percent had taken two years or more of mathematics. Fifty-two percent had completed two years or more of science. Twenty-five percent had taken two years or more of a modern foreign language.

- Data collected for the nation's class of 1980 on specific mathematics and science courses indicate that participation declined as the level of difficulty increased. Four-fifths had taken algebra I, almost three-fifths had taken geometry, and one-half had taken algebra II. On the other hand, little more than one in four had taken a course in trigonometry, while fewer than one in ten had completed a course in calculus. About 38% of the seniors had taken a course in chemistry, but only about 20% had completed a course in physics.

- In 1981, the nation's adult education participants took a total of 37.4 million courses. Almost 23% of the courses were in the field of business. Health-related courses and engineering technology accounted for nearly 10%.

- Currently about 80% of a representative sample of Massachusetts secondary schools award credit for work experience programs. Schools are most likely to award credit for Vocational Work Experience (VWE) programs and General Work Experience (GWE) programs. In VWE programs students are employed in an occupational area in which they desire employment after graduation. GWE programs are designed to promote desirable attitudes and the relationships between formal education and job success. Students in GWE programs work in part-time jobs which may or may not be related to their specific occupational goals.

- There is an increasing body of longitudinal and objective analytic research documenting numerous positive academic, cognitive, social and vocational gains made by students who have participated in early childhood education programs and interventions.

- There is an increasing demand for early childhood education programs with particular need for programs for children under three years of age and for gifted and talented children.

- Before the advent of the Federal Block Grant, school districts had already begun to divert Federal Title IV B monies toward the development of educational technology curriculum and equipment. This trend has continued and increased under Chapter 2 of the Education Consolidation Act. In the 1982-83 school year, 79% of all Massachusetts school districts spent at least part of their grant on some phase of computer instruction.

RESULTS

Table F-1

Results Rankings

Characteristic	Mass. Rank	Mass. Value	U.S. Value
Average Daily Attendance as a Percent of Average Daily Membership, 1983-84	44	90.7	94.5
Percent Change in Number of High School Graduates, 1978-79 to 1983-84	41	-13.9	-9.4

Source: NEA Rankings, 1984

TABLE F-2

Percent of Students Meeting Minimum Standards
on Basic Skills Tests in Reading, Writing and Mathematics, 1980-81 to 1983-84

	READING				WRITING				MATHEMATICS			
	80-81	81-82	82-83	83-84	80-81	81-82	82-83	83-84	80-81	81-82	82-83	83-84
Early Elementary	93	92	93	94	89	91	92	93	93	93	94	94
Later Elementary	91	91	91	91	89	91	92	91	89	90	91	91
Secondary	89	89	89	90	86	88	90	89	89	88	89	89

Source: 4th Annual Basic Skills Report, Statewide Summary, 1984.

TABLE F-3

Percent of Students Achieving Minimum Standards
on State Basic Skills Tests

	Minimum Standard and Percent Achieving Below State Mean*				Minimum Standard and Percent Achieving Above State Mean*			
	Number of Districts	Districts Mean Minumum Standard	Total Number of Students	Percent Students Achieving Minimum Standard	Number of Districts	Districts Mean Minimum Standard	Total Number of Students	Percent Students Achieving Minimum Standard
Secondary Reading	20	56.1	10,065	83.5	53	67.5	13,117	94.6
Secondary Math	23	54.2	11,648	81.8	40	65.4	8,593	93.9

*State Mean Standard - Reading = 62, Math = 59
Percent Achieving - Reading - 90%, Math - 89%

Source: 1983-84 Individual District Basic Skills Reports

Table F-4

Average SAT Verbal and Mathematics Scores for All College Bound Seniors, 1982, 1983, 1984

	1982	1983	1984
Nation			
Verbal	426	425	426
Math	467	468	471
New England			
Verbal	428	430	432
Math	464	465	468
Massachusetts			
Verbal	425	427	429
Math	463	463	467

Source: Admissions Testing Program Test Scores: Update, 1982, 1983, 1984.

Table F-5

Average PSAT Verbal and Mathematics Scores*

1981, 1982 and 1983

	1981	1982	1983
Nation			
Verbal	41.5	41.1	40.9
Math	45.1	44.7	44.7
Massachusetts			
Verbal	42.3	41.5	41.7
Math	45.4	44.5	44.9

*PSAT scores range from 20-80. They can be compared to SAT scores by rounding and multiplying them by 100.

Source: Admissions Testing Program Test Scores: Update, 1982, 1983, 1984.

Table F-6

Average Achievement Test Scores for All National and Massachusetts College Bound Seniors, 1982, 1983, 1984

	1982	1983	1984
All Achievement			
Nation	537	537	537
Massachusetts	512	510	511
English Composition			
Nation	520	518	518
Massachusetts	502	500	499
Math-Level I			
Nation	545	543	542
Massachusetts	524	521	520
American History			
Nation	511	516	521
Massachusetts	498	495	502
Biology			
Nation	548	544	550
Massachusetts	509	508	513
Chemistry			
Nation	575	569	573
Massachusetts	541	536	542
French			
Nation	546	548	544
Massachusetts	548	549	544
Literature			
Nation	521	523	521
Massachusetts	493	494	497

Source: Admission Testing Program Test Scores: Update, 1982, 1983, 1984.

Table F-7

Number, Percent and Estimated Grade Point Average of Seniors With SAT Scores, 1982, 1983, 1984

	1982	1983	1984
Number of Seniors			
Nation	988,680	963,209	964,739
New England	115,794	111,534	108,698
Massachusetts	56,435	54,337	52,534
Percent of Total			
Nation	100.0	100.0	100.0
New England	11.7	11.6	11.3
Massachusetts	5.7	5.6	5.4
Estimated High School Grade Point Average			
Nation	3.06	3.06	3.04
New England	2.93	2.92	2.90
Massachusetts	2.90	2.89	2.86

Source: Admissions Testing Program Test Scores: Update, 1982, 1983, 1984.

Table F-8

Per Capita (Per 100,000 Population) Participation in Advanced Placement for Massachusetts and Selected States, 1974,1979,1984

	1974	1979	1984
*Massachusetts	72	125	191
*New York	97	159	231
New Jersey	50	91	142
Pennsylvania	44	70	95
Michigan	32	53	191
California	48	94	151
*Maine	15	23	43
*New Hampshire	47	73	143
*Connecticut	76	119	185
*Vermont	18	49	120
*Rhode Island	37	76	131
Total United States	38	68	104

* N.E.R.E.X. State

Source: College Board, 1984

Table F-9

Number of Students in the Title I Programs* with Pre-Test and Post-Test Achievement Test Scores in School Year Projects, Grades 2-12 for each Subject Area and Testing Schedule, Fiscal Year 1982

	Testing Schedule			
	Fall-to- Spring	Year- to- Year	Total	Percent of Total
Subject Area				
Reading	33,570	2,385	35,955	63.4
Mathematics	14,862	2,007	16,869	29.8
Language Arts	3,102	774	3,876	6.8
Total	**51,534**	**5,166**	**56,700**	**100.0**

*Title I became Chapter 1 of the Education Consolidation and Improvement Act (ECIA) of 1982, implemented Fiscal 1983.

Source: Title I Annual Evaluation Report, Fiscal Year 1982.

Table F-10

Title I Reading Achievement Results for School Year Projects with Year-To-Year Testing Schedules Expressed in Normal Curve Equivalent (NCE) Scores, Fiscal Year 1982

Grade	Number of Students with Pre-and Post-Test Scores	NCE Post -Test Mean (Weighted Mean)	NCE Mean Gain (Weighted Mean
2	273	46.9	5.2
3	357	40.9	3.1
4	417	41.2	1.8
5	420	42.0	6.0
6	351	42.8	6.0
7	258	42.5	3.6
8	198	41.1	1.9
9	42	43.6	7.1
10	69	43.6	9.2
Total	**2,385**	**42.4**	**4.3**

Source: Title I Annual Evaluation Report, Fiscal Year 1982

Table F-11

Title I Reading Achievement Results for School Year Projects with Fall-to-Spring Testing Schedules- Expressed in Normal Curve Equivalent (NCE) Scores, Fiscal Year 1982

Grade	Number of Students With Pre-and Post-Test Scores	NCE Post-Test Mean (Weighted Mean)	NCE Mean Gain (Weighted Mean)
2	4,863	44.7	9.5
3	4,926	42.0	6.2
4	5,319	41.0	5.8
5	4,914	39.7	5.9
6	4,371	40.2	6.7
7	2,955	39.0	5.6
8	2,334	35.8	5.7
9	1,773	38.9	6.9
10	1,428	37.1	4.8
11	435	30.8	5.6
12	252	23.9	2.1
Total	33,570	40.3	6.6

Source: Title I Annual Evaluation Report, Fiscal Year 1982

Table F-12

Title I Mathematics Achievement Results for School Year Projects with Year-To-Year Testing Schedules-Expressed in Normal Curve Equivalent (NCE) Scores, Fiscal Year 1982

Grade	Number of Students with Pre- and Post-Test Scores	NCE Post-test Mean (Weighted Mean)	NCE Mean Gain (Weighted Mean
2	192	44.3	7.5
3	213	42.3	4.3
4	327	41.6	5.8
5	375	43.2	5.3
6	357	44.1	1.3
7	306	43.7	4.8
8	237	45.4	8.3
Total	2,007	43.5	5.1

Source: Title I Annual Evaluation Report, Fiscal Year 1982

Table F-13

Title I Mathematics Achievement Results for School Year Projects with Fall-to-Spring Testing Schedules-Expressed in Normal Curve Equivalent (NCE) Scores, Fiscal Year 1982

Grade	Number of Student With Pre-and Post-Test Scores	NCE Post-test Mean (Weighted Mean	NCE Mean Gain (Weighted Mean)
2	1,848	48.4	13.6
3	2,478	45.7	10.3
4	2,883	45.4	9.3
5	2,445	43.4	7.7
6	2,241	44.0	9.1
7	957	44.6	6.3
8	600	44.8	8.0
9	948	38.7	6.8
10	366	37.2	7.5
11	63	31.2	5.5
12	33	23.0	4.1
Total	**14,862**	**44.5**	**9.2**

Source: Title I Annual Evaluation Report, Fiscal Year 1982

Table F-14

Title I Language Arts Achievement Results for School Year Projects with Year-To-Year Testing Schedules-Expressed in Normal Curve Equivalent (NCE) Scores, Fiscal Year 1982

Grade	Number of Students with Pre-and Post-Test Scores	NCE Post-test Mean (Weighted Mean)	NCE Mean Gain (Weighted Mean)
2	126	51.2	8.3
3	93	45.5	5.1
4	123	46.1	6.0
5	117	45.6	2.4
6	129	47.5	5.8
7	117	42.2	2.4
8	69	46.1	6.8
Total	774	46.4	5.2

Source: Title I Annual Evaluation Report, Fiscal Year 1982

Table F-15

Title I Language Arts Achievement Results for School Year Projects With Fall-To-Spring Testing Schedules-Expressed in Normal Curve Equivalent (NCE) Scores, Fiscal Year 1982

Grade	Number of Students with Pre-and Post-Test Scores	NCE Post-test Mean (Weighted Mean)	NCE Mean Gain (Weighted Mean)
2	45	51.0	2.5
3	60	53.2	18.8
4	213	44.9	10.0
5	126	43.8	8.2
6	771	42.0	7.2
7	666	38.2	5.2
8	642	36.3	4.3
9	291	38.1	6.4
10	231	34.4	5.5
11	45	27.2	3.3
12	12	30.5	-0.3
Total	13,102	39.4	6.3

Source: Title I Annual Evaluation Report, Fiscal Year 1982

Table F-16

Chapter 74 Secondary Enrollments and Completers by Major Program Area, Fiscal Year 1983

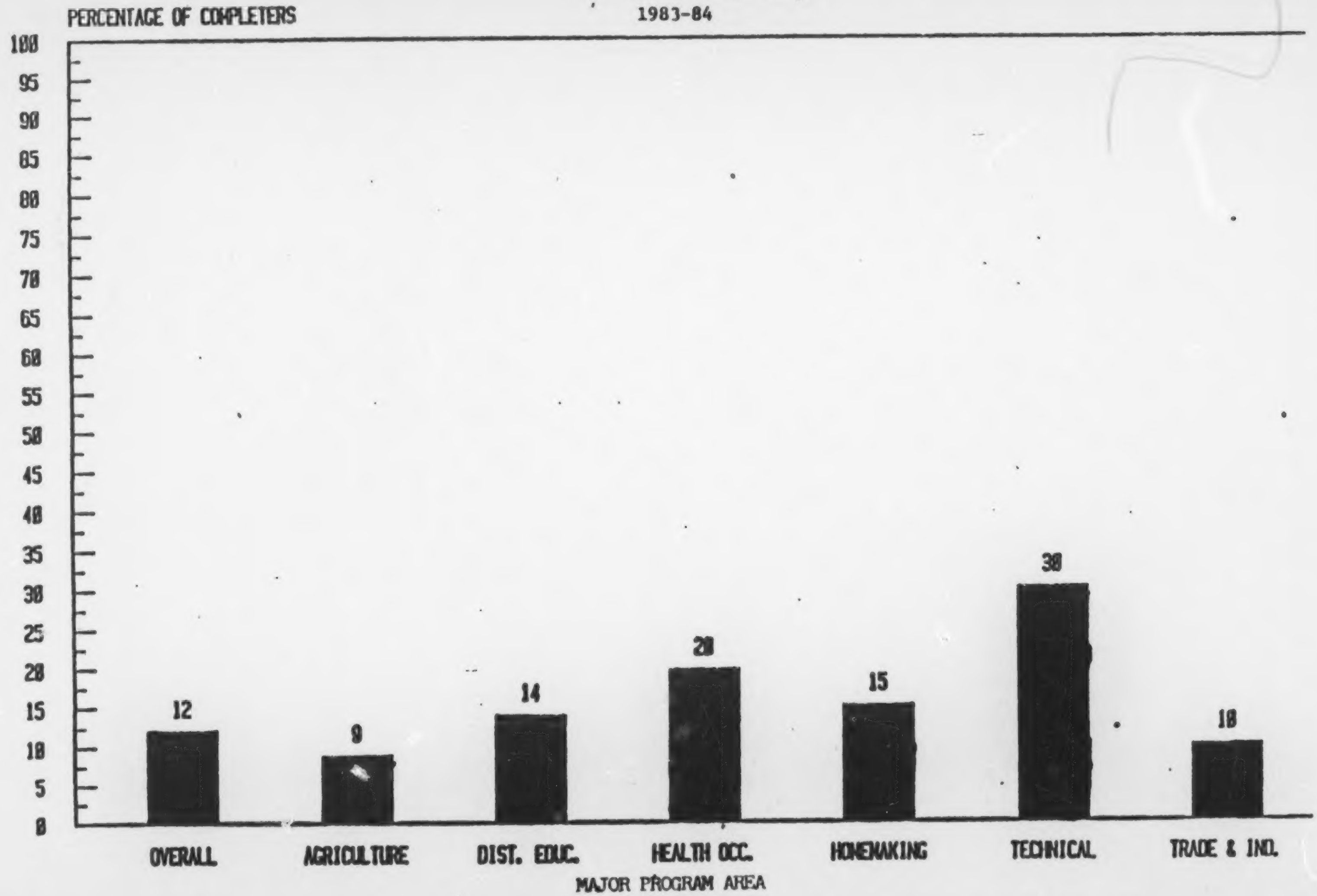
Program Area	1982 - 1983 Enrollments	1982 - 1983 Completers
Agriculture	1,604	347
Distributive Education	3,812	1,706
Health	1,996	451
Occupational Preparation Homemaking	1,978	338
Technical	1,869	531
Trade Industry	35,406	8,159
Total	46,776	11,532

Source: The Commonwealth of Massachusetts Annual Accountability Report for Vocational Education for Fiscal Year 1983. June, 1984

CH. 74 COMPLETERS PURSUING EDUCATION

BY MAJOR PROGRAM AREA,

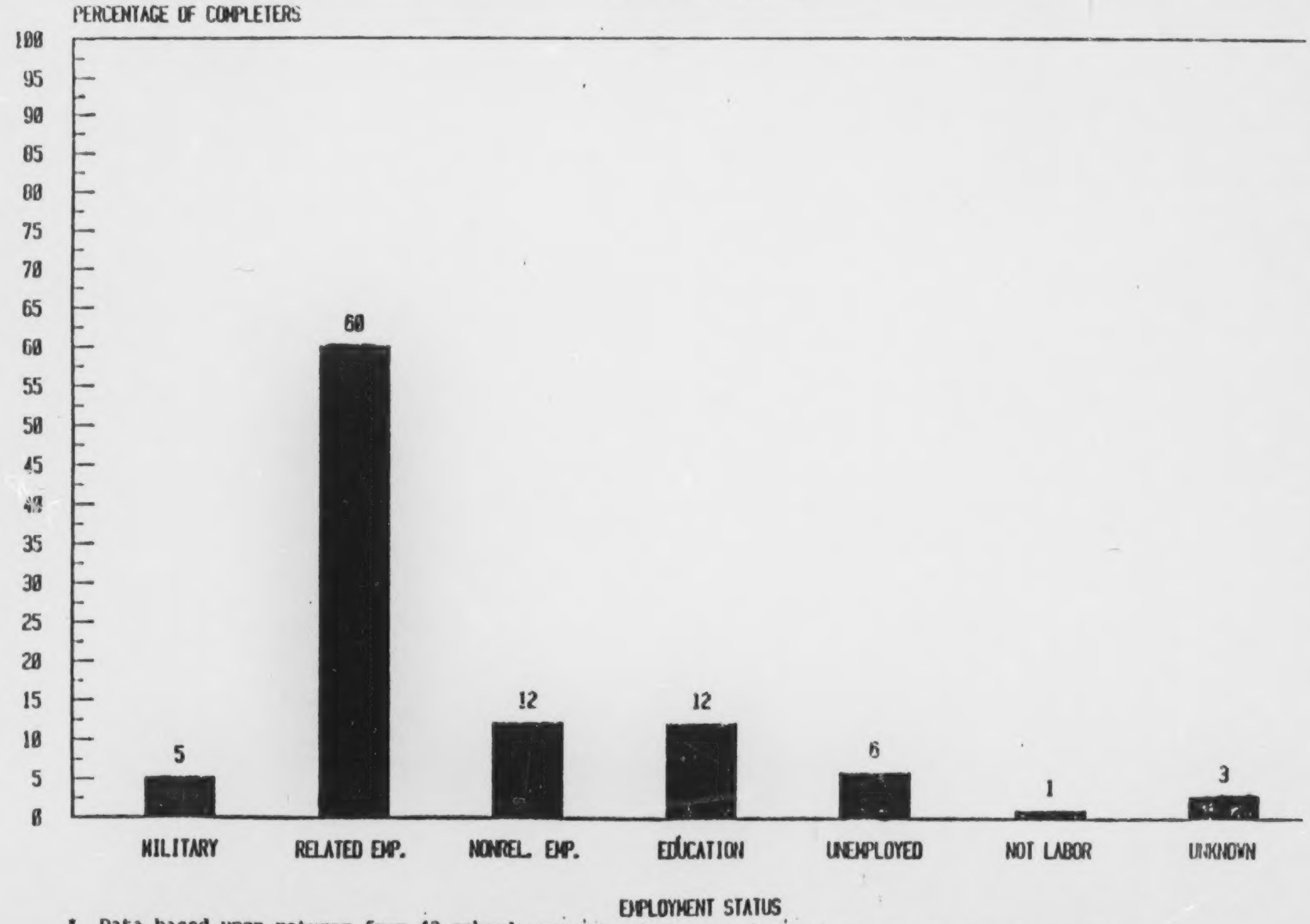
1983-84



*Data based upon returns from 42 school systems which maintain five or more Chapter 74 programs
Source: Division of Occupational Education Placement Survey, 1984

EMPLOYMENT STATUS OF 1983-84 COMPLETERS,

ALL PROGRAMS COMBINED



* **Data based upon returns from 42 school systems which maintain five or more Chapter 74 programs.**
Source: Division of Occupational Education Placement Survey, 1984

TABLE F-17

MASSACHUSETTS

PUBLIC HIGH SCHOOL GRADUATES, CLASSES OF 1973-1983

REPORTED PLANS AFTER GRADUATION

(% of that year's total in parentheses)

	4 Year Public	4 Year Other	2 Year Public	2 Year Other	Nurses Training	Other Post Secondary	Military	Work	Other	NA	Total Reported Graduates
1973	10677 (14)	13704 (18)	7798 (10)	3338 (4)	1320 (2)	4007 (5)	2231 (3)	26045 (34)	7111 (9)		76231
1974	10292 (17)	11213 (18)	6442 (10)	2518 (4)	958 (2)	3092 (5)	1922 (3)	20055 (32)	5631 (9)	10	62133
1975	12842 (16)	13715 (17)	8710 (11)	3207 (4)	1018 (1)	3387 (4)	3157 (4)	24189 (31)	4771 (6)	3332 (4)	78408
1976	11745 (16)	13864 (18)	8034 (11)	3372 (4)	835 (1)	3477 (5)	3045 (4)	23238 (31)	4976 (7)	2800 (4)	75386
1977	11915 (16)	13985 (19)	7943 (11)	3026 (4)	719 (1)	3284 (5)	3021 (4)	23041 (32)	3501 (5)	1958 (3)	72393
1978	13447 (17)	15140 (19)	7989 (10)	3147 (4)	601 (1)	3492 (4)	2955 (4)	25245 (32)	3684 (5)	2448 (3)	78348
1979	13107 (17)	14929 (20)	7772 (10)	3264 (4)	571 (1)	3564 (5)	2662 (3)	25087 (33)	3561 (5)	1794 (2)	76391
1980	13428 (18)	14969 (20)	7450 (10)	3234 (4)	583 (1)	3600 (5)	2932 (4)	22955 (31)	2970 (4)	1681 (2)	73002
1981	14005 (19)	14611 (20)	8153 (11)	3285 (4)	600 (1)	3334 (4)	3023 (4)	22775 (30)	3500 (5)	1590 (2)	74876
1982	13466 (18)	15603 (20)	8074 (11)	3531 (5)	591 (1)	3464 (5)	3176 (4)	22058 (30)	3010 (4)	1866 (3)	74299
1983	13022 (18)	14498 (20)	7628 (11)	3458 (5)	497 (1)	3311 (5)	3239 (5)	20553 (29)	3187 (4)	1832 (3)	71225

Source: DISTRIBUTION OF HIGH SCHOOL GRADUATES, 1973-1983.

Table F-18

Self-Reported Skills and Achievement* of Participants in Adult Basic Education Programs, Fiscal Year 1984

Program	
Improved English Skills	9,930
Improved Reading Skills	17,277
Improved Writing Skills	15,545
Improved Math Skills	14,216
Entered Another Education Program	3,633
Passed the GED test	4,099
Obtained high school diploma	482
Became American citizens	284
Left welfare rolls	589
Improved educational skills to hold present job	5,109
Improved educational skills enough to get a job	4,659
Improved educational skills to enter another educational program	6,054
Increased self-confidence	16,925
Helped children with homework	2,885
Learned about Government and Law	9,810
Learned about Community Services	10,319
Learned about Parenting Skills	3,182
Learned about Consumer Economics	9,171
Learned about Health Care	8,048
Learned about Preparing Income Taxes	1,585
Learned about Occupational Knowledge	9,406
Passed Driver's Test	901

*Students were permitted to report more than one skill or achievement.

Source: Survey of Participants in Adult Learning Centers, Fiscal Year'84

TRENDS

- The 2.7 million United States high school graduates in school year 1981-82 represented a net decrease of about 0.5 percent (14,000 graduates) from the number graduated in the prior year. The 0.5% decrease in graduates closely reflects the decrease in the 12th grade enrollment for the same period. One of the eight states with a decrease of 1,000 or more graduates, Massachusetts decreased by 1,400 (-2%) graduates but only by 200 students in the 12th grade. The seven other states with substantial graduate decreases were: New York (-2%), Ohio (-3%), Minnesota (-3%), Pennsylvania (-1%), Iowa (-3%) and Kansas (-4%).

- The national proportion of graduates to 12th grade enrollment (93%) remained stable between school years 1977-78 and 1981-82. Nationwide there appears to be little change in the post high school activities of seniors between 1972 and 1980 although there is a higher percentage of students working while they are attending college.

- Nearly 3.6 million students graduated from high school or its equivalent in the United States during the spring and summer of 1980. Private schools graduated close to 300,000 students or more than 8% of the total number of graduating students.

- Between 1973 and 1983 there was an 8% increase in the number of Massachusetts high school graduates planning to attend some type of higher education institution, an 18% increase in those planning to attend a four year public college and a 31% increase in the number seeking to enter the military. These increases are particularly noteworthy since during the same period, there was a 6.5% decline in the total number of high school graduates.

- During the same ten year period, Massachusetts graduates planning to enter military service (as a percent of total graduates) grew from 3% to 5% and graduates planning to work (as a percent of total graduates) declined from 34% to 29%.

- More students achieve district minimum standards on the State Basic Skills Tests in districts which have set their standards higher than the state average standard (reading 94.6% and mathematics 93.9%) as compared to those districts setting their minimum standards lower than the state average standard (reading 83.5% and mathematics 81.8%).

- The percentage of students achieving minimum standards in Basic Skills for 1983-84 is at least equal to the percentage in the first year of the policy (1980-81).

- Early elementary school students have consistently achieved minimum standards on Basic Skills Tests at a higher rate than students at the other two levels.

- Secondary students have the lowest passing rates on Basic Skills Tests.

- A smaller percentage of students at all levels achieve minimum standards in writing than in the other skill areas of Basic Skills Tests.

- The differences observed in the aggregate Basic Skills data between 1980-81 and 1983-84 are small.

- A great many employers and supervisors feel that Massachusetts' Vocational Secondary Schools are effectively preparing students for employment. Between 80-90% of the 775 employers and supervisors participating in a vocational follow-up study rated former Commonwealth students as "good" to "very good" in terms of Technical Knowledge, Work Attitude, Work Quality, Overall Training/Performance and Relative Preparation.

- Consistently high ratings of former Massachusetts vocational students in Work Attitude supports the notion that these schools are imparting more than skills to students. They are providing them with an outlook and demeanor which is recognized and appreciated by employers and supervisors.

- Based on the 1980 Census, Massachusetts is reaching only about 3% of the target population of adults needing basic education (29,235 students).

- The two most commonly cited reasons for participants leaving Adult Basic Education programs were that: the program met his or her personal objective and the student was advancing to another education program.

- Massachusetts schools encourage broad participation in standardized college admission testing both in terms of number of students and high school grades. Well over 5% of the nation's seniors taking the exam were from Massachusetts schools between 1982 and 1984. During this same period the estimated grade point averages of Massachusetts students taking the SAT was slightly below the national average.

- A total of 56,700 students participating in Massachusetts Title I programs were tested for Fiscal 1982 in reading, mathematics and language arts. The majority (63.4%) of the students tested were in Title I Reading programs:

  Fall-to-Spring reading achievement gains were higher than average in grades 2 and 9. Year-to-year gains were greater than average in grades 2, 5, 9 and 10.

Fall-to-spring mathematics gains were above average in grades 2, 3 and 4. Year-to-year gains exceeded the average in grades 2, 5, 9 and 10.

Positive fall-to-spring achievement gains occurred at all grade levels in language arts with the exception of grade 12. Very low 12th grade enrollment (12 students) renders this negative result insignificant statewide.

Fall-to-spring achievement gains were higher than average for grades 3,4,5, 6 and 9 and the year to year gains were above average for grades 2, 4, 6 and 8.

- Although black students still score well below white students on both verbal and mathematics scores of the SAT, there is evidence that the gap is shrinking. Black students made a ten point gain on the verbal SAT from 1976 to 1984 while white student verbal scores declined six points in the same period. In mathematics, black students increased their average score 19 points and white students dropped six points.
- In May 1984, 4,370 students in 6,126 Massachusetts schools took Advanced Placement (AP) examinations. These students represent 167 high schools or 65% of all public high schools in Massachusetts. Seventy-five percent of the examinations taken by these students received a rating of 3 or better.
- Nationally, the scores on 70% of the AP exams taken were "3" or better (on a scale of 1-5). The average score of Massachusetts public students was higher than the national average on 18 of the 24 examination areas.
- Massachusetts' average scores on the AP examination scores were below average in French literature, art studio drawing, German, spanish, music listening/literature, and music theory.
- 6.3% of the Massachusetts AP candidates reported themselves as minorities.
- 55% of all Massachusetts AP candidates were male; 45% female.
- Massachusetts participation in AP examinations has exceeded the average United States participation in three quinquennial observations: 1974, 1979 and 1984. Next to New York, Massachusetts has the highest participation among the NEREX states.

MAJOR TRENDS

Major Trends

- While professional and technical occupations are expected to increase by 1990, teaching will show no substantial change.
- Teacher openings are expected to be greatest in mathematics and science.
- A substantial number of Massachusetts school children are living at or below the poverty level.
- Nearly half of the Massachusetts families living below the poverty level have school age children.
- The number of female-headed families with school age children is increasing.
- The number of married couples with school aged children has decreased since 1970.
- Parents opting for non public education for their children tend to be more affluent, better educated and living with their spouse as compared to those opting for public education.
- The number of adults functioning below the 12th grade level is increasing. Indeed, the number of such persons currently exceed the number of school age children in the Commonwealth.
- There is an increasing number of non-English speaking persons in Massachusetts especially in urban areas of the state.
- The fastest growing ethnic population in Massachusetts is Asian.
- Nursery school, kindergarten and first grade enrollment is increasing.
- Massachusetts public school enrollment will continue to decline through Fiscal 1989, however, the rate of decline will be smaller each year.
- Certain developing communities have and will continue to have increasing student enrollment despite statewide decline.
- Although Massachusetts non public school enrollment, as a percent of total school enrollment, is currently slightly less than the 1972 level, it has been steadily increasing since the low point set in 1977.
- The absolute number of non white students as well as their percent of total public school enrollment is increasing.

- The number of educational staff cuts made in the wake of Proposition 2 1/2 was greater than was needed to compensate for enrollment decline in those years.
- Despite local levy limitations and state aid increases, Massachusetts continues to rely heavily on the local property tax for the support of public education.
- Massachusetts should expect less and less federal support for categorical aid programs.
- Disparities in spending among Massachusetts school districts continue to exist.
- There has been a steady decrease in the number of individuals who are entering the teaching profession.
- The most able young teachers are leaving the profession early for better and higher salaried positions.
- The more academically able college students are tending to select professions other than teaching.
- Teaching continues to be among the lowest paid professions.
- Many United States public school teachers are indicating serious dissatisfaction with their occupational choice.
- The demand for elementary school teachers is increasing as the number of younger children increases.
- In the late 1990s, the demand for secondary school teachers will increase as the current "boomlet" of elementary school children matures.
- There will be more female and minority students enrolled in occupational education programs.
- The elementary and secondary curriculum will need to continually adapt to keep pace with emerging technologies. Thus, we expect more incorporation of technology across subject fields in the curriculum, interaction of image-based, and information based technologies in course material development as well as additional courses promoting specific computer skills and awarenesses.
- The increased technological sophistication of our society will require new and additional pre-and in-service training for teachers as well as new certification requirements.
- Research indicates that early childhood education benefits all kinds of students.
- Counseling services are limited in many older, poorer urban areas.

- It is expected that many Massachusetts high schools will increase the academic core requirements for graduation.
- Statewide, about the same percentage of students are achieving minimum Basic Skills standards in 1983-84 as in the first year of the policy.
- Early elementary students have tended to achieve minimum standards at a higher rate than students in later grades.
- Fewer students at all grade levels pass the Basic Skills test in writing.
- Sample data indicate most employers are satisfied with the preparation received by graduates of Massachusetts vocational education schools.
- Most adults in need of basic education services are not receiving them.
- Massachusetts schools encourage many students to take the SAT including students with lower high school grade point averages which partly explains the lower scores.
- A total of 56,700 students participating in the Massachusetts Title I Program were tested for Reading, Mathematics and Language Arts in Fiscal 1982. Achievement gains were higher than average in most grades.
- Massachusetts students scored above the national average on 18 of the 24 subjects comprising the Advanced Placement examination in 1984.
- More than half of Massachusetts Advanced Placement candidates were male and 6.3% reported themselves as minorities.
- Massachusetts participation in the Advanced Placement examination has exceeded the national average in three quinquennial observations taken in 1974, 1979 and 1985.

GLOSSARY

A.F.D.C. - Aid for Dependent Children. Funded by the federal government (50%) and by the state government (50%), the program provides cash assistance to (predominately) poor women and their children.

Achievement Test - An examination that measures the extent to which a person has acquired certain information or mastered certain skills, usually as a result of specific instruction.

Advanced Placement Examination (AP) - An examination to measure student achievement in a specific subject area and used to permit students to bypass the initial college level courses in that area and begin at a higher level.

Chapter 1 - Chapter 1 of the Education Consolidation and Improvement Act (ECIA) 1981 is the largest federal aid to education program in the nation. Similar to its predecessor, Title I, Chapter 1 provides supplementary services in the basic skills to educationally deprived children in locations with high concentrations of poverty.

Chapter 2 - Chapter 2 of the Education Consolidation and Improvement Act (ECIA) of 1981 consolidated twenty-eight categorical aid programs into a single formula grant to states and several discretionary programs. The major categorical programs included in Chapter 2 are: Instructional Materials and School Library Resources (ESEA Title IV-B); Improvement in Local Educational Practices (ESEA Title IV-C); Strengthening State Education Agency Management (ESEA Title V-B); Emergency School Aid (ESEA Title VI); and Basic Skills (ESEA Title II).

Chapter 74 - Chapter 74 is the Massachusetts law governing vocational education. The programs funded through Chapter 74 include: distributive education, industrial arts, agricultural education, household arts, and practical nurse training.

Expenditure Per Pupil - For state reporting purposes, Massachusetts includes state and local operating costs only but does not include capital costs, State Department of Education costs; teacher pensions and federal program costs. This differs from the definition of expenditures for some federal reporting purposes which may also include: federal program costs, operating costs of the State Department of Education and teacher pensions in addition to all state and local operating costs. Expenditures defined in either way are then divided by one of the following definitions of pupil: average daily attendance (ADA), average daily membership (ADM), school attending child (SAC), pupil headcount, full-time equivalent pupil (FTE) or weighted full-time equivalent pupil (WFTE).

Integrated Per Pupil Expenditure - For each city and town, integrated expenditures include: operating costs of local school district programs (regular, special, bilingual and occupational education); costs of community membership in a regional school district, costs of community membership in a regional school district, where applicable, and tuition paid to other schools. The integrated cost is then divided by the sum of pupils in local public schools, appropriate regional school districts and special needs day and residential schools.

KOC - Kind of Community. A scheme which classifies Massachusetts cities and towns based on community social, demographic and economic attributes. KOC can be used to analyze and report educational data as well as to sample communities, train staff and facilitate inter district collaboration.

Labor Productivity - The dollar amount of output per hour of all persons in the labor force in all sectors of the economy.

LEA - Local Education Agency. This term is used synonymously with the terms "school district," "school system," and "basic administrative unit."

NA - Not available

N.C.E.S. - National Center for Education Statistics.

N.E.A. - National Education Association.

N.E.R.E.X. - Northeast Regional Exchange.

PSAT - Preliminary Scholastic Aptitude Test.

SAT - Scholastic Aptitude Test.

SEA - State Education Agency.

T.B.E. - Transitional Bilingual Education.